

19 targets supported by
GENETIC VALIDATION

The industry's largest toolkit with
9 MODALITIES

A mix of
**INNOVATIVE MOLECULES,
NEW INDICATIONS, AND BIOSIMILARS**

A robust and differentiated pipeline, leveraging state-of-the-art science to create medicines for serious illness. Amgen is focused on high-quality candidates that demonstrate large, clinically-relevant effects. Human genetic validation is used whenever possible to enhance the likelihood of success.

| PHASE ONE | | | PHASE TWO | | | PHASE THREE | | |
|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|---|--|---------------------------------------|---|--|
| AMG 172 Hematology/ Oncology | AMG 208 Hematology/ Oncology | AMG 211 Hematology/ Oncology | AMG 139 Inflammation | AMG 157 Inflammation | AMG 181 Inflammation | AMG 416 Nephrology | Aranesp® (darbepoetin alfa) Hematology/ Oncology | BLINCYTO™ (blinatumomab) Hematology/ Oncology |
| AMG 232 Hematology/ Oncology | AMG 282 Inflammation | AMG 319 Hematology/ Oncology | AMG 334 Neuroscience | AMG 337 Hematology/ Oncology | BLINCYTO™ (blinatumomab) Hematology/ Oncology | Brodalumab Inflammation | Evolocumab Cardiovascular | Kyprolis® (carfilzomib) Hematology/ Oncology |
| AMG 357 Inflammation | AMG 557 Inflammation | AMG 581 Neuroscience | Brodalumab Inflammation | Kyprolis® (carfilzomib) Hematology/ Oncology | Omecamtiv mecarbil Cardiovascular | Prolia® (denosumab) Bone Health | Romosozumab Bone Health | Talimogene laherparepvec Hematology/ Oncology |
| AMG 595 Hematology/ Oncology | AMG 780 Hematology/ Oncology | AMG 811 Inflammation | Oprozomib Hematology/ Oncology | XGEVA® (denosumab) Hematology/ Oncology | | Trebananib Hematology/ Oncology | Vectibix® (panitumumab) Hematology/ Oncology | XGEVA® (denosumab) Hematology/ Oncology |
| AMG 820 Hematology/ Oncology | AMG 876 Metabolic Disorders | AMG 900 Hematology/ Oncology | | | | | | |
| Oprozomib Hematology/ Oncology | | | | | | | | |

BIOSIMILARS

| ABP 501 (biosimilar adalimumab) | ABP 710 (biosimilar infliximab) | ABP 980 (biosimilar trastuzumab) | ABP 494 (biosimilar cetuximab) | ABP 215 (biosimilar bevacizumab) | ABP 798 (biosimilar rituximab) |
|---------------------------------------|---------------------------------------|--|--------------------------------------|--|---|
| Inflammation | Inflammation | Hematology/ Oncology | Hematology/ Oncology | Hematology/ Oncology | Hematology/ Oncology & Inflammation |

| PHASE ONE Phase 1 clinical trials investigate safety and proper dose ranges of a product candidate in a small number of human subjects. | | | |
|---|----------------------------|---------------------|---|
| MOLECULE NAME & PRONUNCIATION | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
| AMG 172 | Antibody-Drug Conjugate | Hematology/Oncology | AMG 172 is a human anti-CD27L antibody-drug conjugate. It is being investigated in renal cell carcinoma. |
| AMG 208 | Small Molecule | Hematology/Oncology | AMG 208 is a small molecule inhibitor of MET. It is being investigated as a cancer treatment. |
| AMG 211 | BiTE [®] Antibody | Hematology/Oncology | AMG 211 is an anti-CEA x anti-CD3 (BiTE [®]) bispecific antibody construct. It is being investigated as a cancer treatment in solid tumors. AMG 211 is being jointly developed in collaboration with MedImmune. |
| AMG 232 | Small Molecule | Hematology/Oncology | AMG 232 is a small molecule inhibitor of MDM2. It is being investigated as a cancer treatment. |
| AMG 282 | Monoclonal Antibody | Inflammation | AMG 282 is a human antibody that inhibits binding of interleukin-33 to the ST2 receptor. It is being investigated as a treatment for asthma. |
| AMG 319 | Small Molecule | Hematology/Oncology | AMG 319 is a small molecule inhibitor of PI3 Kinase delta. It is being investigated in hematologic malignancies. |
| AMG 357 | Small Molecule | Inflammation | AMG 357 is a small molecule. It is being investigated as a treatment for autoimmune diseases. |
| AMG 557 | Monoclonal Antibody | Inflammation | AMG 557 is a human monoclonal antibody that inhibits the action of B7 related protein (B7RP-1). It is being investigated as a treatment for systemic lupus erythematosus. AMG 557 is being jointly developed in collaboration with AstraZeneca. |
| AMG 581 | Small Molecule | Neuroscience | AMG 581 is a small molecule being investigated for the treatment of schizophrenia. |
| AMG 595 | Antibody-Drug Conjugate | Hematology/Oncology | AMG 595 is a human anti-epidermal growth factor receptor (anti-EGFRvIII) antibody-drug conjugate. It is being investigated as a treatment for glioblastoma. |
| AMG 780 | Monoclonal Antibody | Hematology/Oncology | AMG 780 is a human anti-angiopoietin antibody that inhibits the interaction between the endothelial cell-selective Tie2 receptor and its ligands Ang1 and Ang2. It is being investigated as a cancer treatment. |
| AMG 811 | Monoclonal Antibody | Inflammation | AMG 811 is a human monoclonal antibody that inhibits interferon gamma. It is being investigated as a treatment for systemic lupus erythematosus. |
| AMG 820 | Monoclonal Antibody | Hematology/Oncology | AMG 820 is a human monoclonal antibody that inhibits c-fms and decreases tumor-associated macrophage (TAM) function. It is being investigated as a cancer treatment. |
| AMG 876 | Fusion Protein | Metabolic Disorders | AMG 876 is a fusion protein. It is being investigated as a treatment for type 2 diabetes. |

PHASE ONE Phase 1 clinical trials investigate safety and proper dose ranges of a product candidate in a small number of human subjects.

| MOLECULE NAME & PRONUNCIATION | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
|--|-----------------------|----------------------------|--|
| AMG 900 | Small Molecule | Hematology/Oncology | AMG 900 is a small molecule inhibitor of Aurora kinases A, B, and C. It is being investigated as a cancer treatment. |
| Oprozomib <i>oh proz' oh mib</i> | Small Molecule | Hematology/Oncology | Oprozomib is an oral proteasome inhibitor. It is being investigated for the treatment of hematologic malignancies, with Phase 1b/2 studies ongoing. Oprozomib is being developed by Onyx Pharmaceuticals, an Amgen subsidiary. |

PHASE TWO Phase 2 clinical trials investigate side effect profiles and efficacy of a product candidate in a large number of patients who have the disease or condition under study.

| MOLECULE NAME & PRONUNCIATION | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
|---|---|----------------------------|---|
| AMG 139 | Monoclonal Antibody | Inflammation | AMG 139 is a human monoclonal antibody that inhibits the action of interleukin-23. It is being investigated as a treatment for Crohn's disease, with a Phase 2 study ongoing. AMG 139 is being jointly developed in collaboration with AstraZeneca. |
| AMG 157 | Monoclonal Antibody | Inflammation | AMG 157 is a human monoclonal antibody that inhibits the action of TSLP. It is being investigated as a treatment for asthma, with a Phase 2 study ongoing. AMG 157 is being jointly developed in collaboration with AstraZeneca. |
| AMG 181 | Monoclonal Antibody | Inflammation | AMG 181 is a human monoclonal antibody that inhibits the action of alpha4/beta7. It is being investigated as a treatment for ulcerative colitis and Crohn's disease, with Phase 2 studies ongoing. AMG 181 is being jointly developed in collaboration with AstraZeneca. |
| AMG 334 | Monoclonal Antibody | Neuroscience | AMG 334 is a human monoclonal antibody that inhibits the receptor for calcitonin gene-related peptide. It is being investigated for the prevention of migraine. The Phase 2 study in episodic migraine has completed while the Phase 2 study in chronic migraine is ongoing. |
| AMG 337 | Small Molecule | Hematology/Oncology | AMG 337 is a small molecule inhibitor of MET. It is being investigated as a cancer treatment with a Phase 2 study for the treatment of gastric cancer ongoing. |
| BLINCYTO™ (blinatumomab) | BiTE® Antibody & Oncolytic Immunotherapy | Hematology/Oncology | <p>BLINCYTO™ is an anti-CD19 x anti-CD3 (BiTE®) bispecific antibody.</p> <p>A Phase 3 study in adult patients with relapsed/refractory acute lymphoblastic leukemia (ALL) is ongoing. Phase 2 studies in adult patients with relapsed/refractory Philadelphia chromosome-positive (Ph+) and minimal residual disease of ALL are ongoing. A Phase 2 study in adult patients with diffuse large B-cell lymphoma (DLBCL) is ongoing.</p> <p>BLINCYTO™ is currently marketed in another indication.</p> |

PHASE TWO

Phase 2 clinical trials investigate side effect profiles and efficacy of a product candidate in a large number of patients who have the disease or condition under study.

| MOLECULE NAME & PRONUNCIATION | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
|--|----------------------------|----------------------------|---|
| Brodalumab <i>broe dal' ue mab</i> | Monoclonal Antibody | Inflammation | <p>Brodalumab is a human monoclonal antibody that inhibits the interleukin-17 receptor. It is being investigated as a treatment for a variety of inflammatory diseases. Brodalumab is being jointly developed in collaboration with AstraZeneca.</p> <p>In 2014, Amgen and AstraZeneca announced results from three Phase 3 studies evaluating patients with moderate-to-severe plaque psoriasis.</p> <p>Two Phase 3 studies evaluating brodalumab for the treatment of psoriatic arthritis initiated enrollment in 2014. A Phase 2 study evaluating brodalumab for the treatment of asthma is ongoing.</p> |
| Kyprolis[®] (carfilzomib) | Small Molecule | Hematology/Oncology | <p>Kyprolis[®] is a proteasome inhibitor. It is being investigated as a treatment for patients with multiple myeloma and small-cell lung cancer.</p> <p>In 2014, Amgen and Onyx Pharmaceuticals announced results from an interim analysis from a Phase 3 clinical trial in relapsed multiple myeloma (ASPIRE). Results from a Phase 3 clinical trial in relapsed/refractory multiple myeloma (FOCUS) were also announced in 2014.</p> <p>In January 2015, Amgen and Onyx Pharmaceuticals announced the submission of a Supplemental New Drug Application (sNDA) to the U.S. Food and Drug Administration (FDA) and a Marketing Authorization Application (MAA) to the European Medicines Agency (EMA) for Kyprolis[®] to seek approval for the treatment of patients with relapsed multiple myeloma who have received at least one prior therapy. In the U.S., the sNDA is designed to support the conversion of accelerated approval to full approval and expand the current approved indication.</p> <p>Phase 3 studies in combination with dexamethasone compared to bortezomib in combination with dexamethasone in relapsed multiple myeloma, and in combination with melphalan and prednisone compared to bortezomib, melphalan and prednisone in newly diagnosed multiple myeloma are ongoing.</p> <p>Kyprolis[®] is being developed by Onyx Pharmaceuticals, an Amgen subsidiary.</p> |
| Omecamtiv mecarbil <i>om" e kam' tiv me kar' bil</i> | Small Molecule | Cardiovascular | <p>Omecamtiv mecarbil is a small molecule activator of cardiac myosin. It is being investigated for the treatment of heart failure. Amgen is developing this product in collaboration with Cytokinetics.</p> <p>A Phase 2 dose escalation study to select and evaluate an oral modified release formulation of omecamtiv mecarbil in subjects with heart failure and left ventricular systolic dysfunction is ongoing.</p> |
| Oprozomib <i>oh proz' oh mib</i> | Small Molecule | Hematology/Oncology | <p>Oprozomib is an oral proteasome inhibitor. It is being investigated for the treatment of hematologic malignancies, with Phase 1b/2 studies ongoing. Oprozomib is being developed by Onyx Pharmaceuticals, an Amgen subsidiary.</p> |
| XGEVA[®] (denosumab) | Monoclonal Antibody | Hematology/Oncology | <p>Denosumab is a human monoclonal antibody that inhibits RANKL.</p> <p>Phase 3 studies for the delay or prevention of bone metastases in patients with adjuvant breast cancer and prevention of skeletal-related events (SREs) in patients with multiple myeloma are ongoing. A Phase 2 study in non-small cell lung cancer is ongoing.</p> <p>XGEVA[®] is currently marketed in other indications.</p> |

PHASE THREE

Phase 3 clinical trials investigate the safety and efficacy of a product candidate in a large number of patients who have the disease or condition under study.

| MOLECULE NAME & PRONUNCIATION | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
|--|--|----------------------------|---|
| AMG 416 | Peptide | Nephrology | <p>AMG 416 is a peptide agonist of the human cell surface calcium-sensing receptor (CaSR).</p> <p>In 2014, Amgen announced results from two Phase 3 studies evaluating AMG 416 for the treatment of secondary hyperparathyroidism in patients with chronic kidney disease (CKD), receiving hemodialysis.</p> |
| Aranesp[®] (darbepoetin alfa) | Therapeutic Protein | Hematology/Oncology | <p>Aranesp[®] is a recombinant human protein agonist of the erythropoietin receptor.</p> <p>The Phase 3 study of Aranesp[®] for the treatment of low risk myelodysplastic syndromes is ongoing.</p> <p>Aranesp[®] is currently marketed in other indications.</p> |
| BLINCYTO[™] (blinatumomab) | BiTE[®] Antibody & Oncolytic Immunotherapy | Hematology/Oncology | <p>BLINCYTO[™] is an anti-CD19 x anti-CD3 (BiTE[®]) bispecific antibody.</p> <p>A Phase 3 study in adult patients with relapsed/refractory acute lymphoblastic leukemia (ALL) is ongoing. Phase 2 studies in adult patients with relapsed/refractory Philadelphia chromosome-positive (Ph+) and minimal residual disease of ALL are ongoing. A Phase 2 study in adult patients with diffuse large B-cell lymphoma (DLBCL) is ongoing.</p> <p>BLINCYTO[™] is currently marketed in another indication.</p> |
| Brodalumab <i>broe dal' ue mab</i> | Monoclonal Antibody | Inflammation | <p>Brodalumab is a human monoclonal antibody that inhibits the interleukin-17 receptor. It is being investigated as a treatment for a variety of inflammatory diseases. Brodalumab is being jointly developed in collaboration with AstraZeneca.</p> <p>In 2014, Amgen and AstraZeneca announced results from three Phase 3 studies evaluating patients with moderate-to-severe plaque psoriasis.</p> <p>Two Phase 3 studies evaluating brodalumab for the treatment of psoriatic arthritis initiated enrollment in 2014. A Phase 2 study evaluating brodalumab for the treatment of asthma is ongoing.</p> |
| Evolocumab <i>e' voe lok' ue mab</i> | Monoclonal Antibody | Cardiovascular | <p>Evolocumab is a human monoclonal antibody that inhibits Proprotein Convertase Subtilisin/Kexin Type 9 (PCSK9). It is being investigated in multiple Phase 3 trials as a treatment for dyslipidemia.</p> <p>In August 2014, Amgen submitted a Biologics License Application (BLA) to the U.S. Food and Drug Administration (FDA) for evolocumab seeking approval for the treatment in high cholesterol that was accepted for review by the FDA in November 2014. In September 2014, our Marketing Authorization Application (MAA) to the European Medicines Agency (EMA) was accepted for review.</p> <p>In 2014, Amgen announced results from two Phase 3 lipid lowering clinical studies evaluating evolocumab in combination with statin therapy in Japanese patients and in homozygous familial hypercholesterolemia patients.</p> <p>Additional Phase 3 studies to evaluate evolocumab for cardiovascular outcomes, on cognitive function, in statin-intolerant subjects, in subjects with genetic low-density lipoprotein disorders, and with intravascular ultrasound are ongoing.</p> |

PHASE THREE Phase 3 clinical trials investigate the safety and efficacy of a product candidate in a large number of patients who have the disease or condition under study.

| MOLECULE NAME & PRONUNCIATION | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
|---|--------------------------------|----------------------------|---|
| Kyprolis[®] (carfilzomib) | Small Molecule | Hematology/Oncology | <p>Kyprolis[®] is a proteasome inhibitor. It is being investigated as a treatment for patients with multiple myeloma and small-cell lung cancer.</p> <p>In 2014, Amgen and Onyx Pharmaceuticals announced results from an interim analysis from a Phase 3 clinical trial in relapsed multiple myeloma (ASPIRE). Results from a Phase 3 clinical trial in relapsed/refractory multiple myeloma (FOCUS) were also announced in 2014.</p> <p>In January 2015, Amgen and Onyx Pharmaceuticals announced the submission of a Supplemental New Drug Application (sNDA) to the U.S. Food and Drug Administration (FDA) and a Marketing Authorization Application (MAA) to the European Medicines Agency (EMA) for Kyprolis[®] to seek approval for the treatment of patients with relapsed multiple myeloma who have received at least one prior therapy. In the U.S., the sNDA is designed to support the conversion of accelerated approval to full approval and expand the current approved indication.</p> <p>Phase 3 studies in combination with dexamethasone compared to bortezomib in combination with dexamethasone in relapsed multiple myeloma, and in combination with melphalan and prednisone compared to bortezomib, melphalan and prednisone in newly diagnosed multiple myeloma are ongoing.</p> <p>Kyprolis[®] is being developed by Onyx Pharmaceuticals, an Amgen subsidiary.</p> |
| Prolia[®] (denosumab) | Monoclonal Antibody | Bone Health | <p>Denosumab is a human monoclonal antibody that inhibits RANKL.</p> <p>A Phase 3 study of Prolia[®] for the treatment of glucocorticoid-induced osteoporosis is ongoing.</p> <p>Prolia[®] is currently marketed in other indications.</p> |
| Romosozumab <i>roe" moe soz' ue mab</i> | Monoclonal Antibody | Bone Health | <p>Romosozumab is a humanized monoclonal antibody that inhibits the action of sclerostin. It is being investigated as a treatment for bone loss. Romosozumab is being developed in collaboration with UCB.</p> <p>Phase 3 studies for the treatment of postmenopausal women with osteoporosis are ongoing. A Phase 3 study in male osteoporosis was initiated in 2014.</p> |
| Talimogene laherparepvec <i>tal im' oh jeen la her" pa rep' vek</i> | Oncolytic Immunotherapy | Hematology/Oncology | <p>Talimogene laherparepvec is an oncolytic immunotherapy derived from HSV-1. It is being investigated as a cancer treatment.</p> <p>A Biologics License Application (BLA) has been accepted for review by the U.S. Food and Drug Administration (FDA) as has a Marketing Authorization Application (MAA) to the European Medicines Agency (EMA) for talimogene laherparepvec for the treatment of patients with regionally or distantly metastatic melanoma.</p> <p>In 2014, Amgen initiated a trial to evaluate talimogene laherparepvec in combination with Merck's anti-PD-1 therapy KEYTRUDA[®] (pembrolizumab), in patients with mid- to late-stage metastatic melanoma.</p> |
| Trebananib <i>tre ban' a nib</i> | Peptibody | Hematology/Oncology | <p>Trebananib is a peptibody that inhibits Ang1 and Ang2. It is being investigated as a cancer treatment.</p> <p>A Phase 3 study evaluating trebananib in the first-line setting of ovarian cancer is ongoing.</p> |

PHASE THREE

Phase 3 clinical trials investigate the safety and efficacy of a product candidate in a large number of patients who have the disease or condition under study.

| MOLECULE NAME & PRONUNCIATION | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
|--|----------------------------|----------------------------|---|
| Vectibix[®] (panitumumab) | Monoclonal Antibody | Hematology/Oncology | <p>Vectibix[®] is a human monoclonal antibody antagonist of the epidermal growth factor receptor (EGFr). It is being investigated as a cancer treatment.</p> <p>A Phase 3 study evaluating the survival benefit of Vectibix[®] plus best supportive care (BSC) compared with BSC alone in subjects with chemorefractory, wild-type KRAS exon 2 mCRC is ongoing.</p> <p>Vectibix[®] is currently marketed in other indications.</p> |
| XGEVA[®] (denosumab) | Monoclonal Antibody | Hematology/Oncology | <p>Denosumab is a human monoclonal antibody that inhibits RANKL.</p> <p>Phase 3 studies for the delay or prevention of bone metastases in patients with adjuvant breast cancer and prevention of skeletal-related events (SREs) in patients with multiple myeloma are ongoing. A Phase 2 study in non-small cell lung cancer is ongoing.</p> <p>XGEVA[®] is currently marketed in other indications.</p> |

BIOSIMILARS

A biosimilar, or follow-on biologic, is a biologic medicine designed to have active properties similar to one that has previously been licensed. Biosimilars follow a different regulatory review pathway than innovative products and indications.

| MOLECULE NAME | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
|--|----------------------------|---|--|
| ABP 215 (biosimilar bevacizumab) | Monoclonal Antibody | Hematology/Oncology | <p>ABP 215 (biosimilar bevacizumab) is an anti-vascular endothelial growth factor A (anti-VEGF) monoclonal antibody.</p> <p>The reference product primary conditions are colorectal cancer, non-squamous non-small cell lung cancer, glioblastoma, renal cell carcinoma, breast cancer, and ovarian cancer.</p> |
| ABP 494 (biosimilar cetuximab) | Monoclonal Antibody | Hematology/Oncology | <p>ABP 494 (biosimilar cetuximab) is an anti-epidermal growth factor receptor (anti-EGFr) monoclonal antibody.</p> <p>The reference product primary conditions are colorectal cancer and head and neck cancer.</p> |
| ABP 501 (biosimilar adalimumab) | Monoclonal Antibody | Inflammation | <p>ABP 501 (biosimilar adalimumab) is an anti-tumor necrosis factor-alpha (anti-TNF) monoclonal antibody.</p> <p>The reference product primary conditions are rheumatoid arthritis, plaque psoriasis, Crohn's disease, ulcerative colitis, ankylosing spondylitis, psoriatic arthritis, and juvenile idiopathic arthritis.</p> |
| ABP 710 (biosimilar infliximab) | Monoclonal Antibody | Inflammation | <p>ABP 710 (biosimilar infliximab) is an anti-tumor necrosis factor-alpha (anti-TNF) monoclonal antibody.</p> <p>The reference product primary conditions are rheumatoid arthritis, plaque psoriasis, Crohn's disease, ulcerative colitis, psoriatic arthritis, and ankylosing spondylitis.</p> |
| ABP 798 (biosimilar rituximab) | Monoclonal Antibody | Hematology/Oncology & Inflammation | <p>ABP 798 (biosimilar rituximab) is an anti-CD20 monoclonal antibody.</p> <p>The reference product primary conditions are non-Hodgkin's lymphoma, chronic lymphocytic leukemia, and rheumatoid arthritis.</p> |

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| MOLECULE NAME | MODALITY | THERAPEUTIC AREA | DESCRIPTION |
|---|--------------------------------|---------------------------------|---|
| ABP 980 (biosimilar trastuzumab) | Monoclonal Antibody | Hematology/ Oncology | ABP 980 (biosimilar trastuzumab) is an anti-HER2 monoclonal antibody. The reference product primary conditions are HER2+ breast cancer and HER2+ gastric cancer. |