

## Corporate Funded Sponsored Projects Activity

| Project Title  | Funding Agency             |
|--|----------------------------|
| A Multi-Center, Prospective, Randomized Trial Comparing the Peripheral I.V. Catheter Complication Rates of Two Different Catheter-Dressings  | 3M                         |
| Lipidomic applications in Trauma and Critical Care Research  | AB SCIEX                   |
| Interleukin-18 blockade in a mouse of heart failure with preserved ejection fraction   | AB2 Bio Ltd                |
| Assessment of Harmonization of Serum Albumin Methods: State of the Art   | Abbott Laboratories        |
| Effects of medication candidates on responding maintained by cocaine and its conditional stimuli   | AbbVie, Inc.               |
| M12-665 A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of Elagolix in Subjects with Moderate to Severe Endometriosis Associated Pain   | AbbVie, Inc.               |
| M13-961: A Randomized, Double-blind, Controlled Study to Evaluate the Efficacy and Safety of the Combination of ABT-450/ Ritonavir /ABT-267 (ABT-450/r/ABT-267) and ABT-333 With and Without Ribavirin (RBV) in Treatment-Naïve Adults with Genotype 1b Chronic Hepatitis C Virus (HCV) Infection (PEARLE-III) | AbbVie, Inc.               |
| Protocol No. M13-393 A Randomized, Open-Label Study to Evaluate the Safety and Efficacy of Coadministration of ABT-450 with Ritonavir (ABT-450/r) and ABT-267 in Adults with Chronic Hepatitis C Virus Infection (PEARL-I)   | AbbVie, Inc.               |
| USpella (Impella 2.5) Data Registry  | Abiomed, Inc               |
| Implementation & Evaluation of a Benefit Offset National Demonstration (BOND)  | Abt Associates Inc.        |
| Double-blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Safety and Efficiency of Two Doses of Oral Dalfampridine Extended Release Tablets (5 mg and 10 mg twice daily) in Patients with Multiple Sclerosis.....Protocol #DER-401  | Acorda Therapeutics, Inc.  |
| Pulmonary Arterial Hypertension Quality Enhancement Research Initiative PAH QuERI  | Actelion                   |
| US-Based, Observational, Drug Registry of Opsumit (R) (Macitentan) New Users in Clinical Practice-OPUS, AC-055-503   | Actelion                   |
| CBH Proposal   |                            |
| The Use of Star Polymers as Viscosity Modifiers, Dispersants, Antioxidants, and Detergents   | Afton Chemical Corporation |
| Acute Kidney Injury N-gal Evaluation of Symptomatic heart failure Study (AKINESIS)... Protocol# DDDP-09EE-081  | Alere                      |
| A randomized, parallel-group, double-blind, placebo-controlled, multi-center study of Eculizumab for the prevention of delayed graft function after kidney transplantation in adult subjects at increased risk of delayed graft function   | Alexion Pharmaceuticals    |
| An Observational, Non-Interventional , Multi-Center, Multi-National Study of Patients with Atypical Hemolytic-Uremic Syndrome - Registry Protocol No. M11-001  | Alexion Pharmaceuticals    |

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| Animal Care Services   | Americian International Biotechnology LLC |
| "START-CKD: Strategies Using Darbepoetin alfa to Avoid Transfusions in Chronic Kidney Disease." Protocol No. 20110226 Subproject for Institution # PT102264  | Amgen, Inc.                               |
| A Phase 1b/2, Multicenter, Open-label Trial to Evaluate the Safety and Efficacy of Talimogene Laherparepvec and Ipilimumab Compared to Ipilimumab Alone in Subjects With Previously Untreated, Unresectable, Stage IIIb-IV Melanoma  | Amgen, Inc.                               |
| A Randomized, Double Blind, Placebo Controlled Study Evaluating the Efficacy and Safety of Romiplostim Treatment of Thrombocytopenia in Subjects with Low or Intermediate-1 Risk Myelodysplastic Syndrome (MDS)<br>Subproject for Institution # PT102264                             | Amgen, Inc.                               |
| Long Term Follow-Up Study of Patients with Hematologic   | Amgen, Inc.                               |
| Master Clinical Trial Agreement  | Amgen, Inc.                               |
| Fishery Entrainment Monitoring Plan  | Arcadis                                   |
| A Phase 3 Randomized, Open-Label Study of Ponatinib Versus Imatinib in Adult Patients with Newly Diagnosed Chronic Myeloid Leukemia in Chronic Phase<br>Subproject for Institution # PT106191  | ARIAD Pharmaceuticals, Inc.               |
| Analysis of multi-target anti-cancer compounds   | Astar Biotech LLC                         |
| 9463-CL-2303 Phase 3 Study to Compare the Efficacy and Safety of Micafungin Versus Amphotericin B Deoxycholate for the Treatment of Neonatal Candidiasis   | Astellas Pharma Global Development, Inc.  |
| A Randomized, Double-Blind, Placebo-Controlled, Phase 2 Trial to Evaluate the Efficacy and Safety of a Vaccine, ASP0113, in Cytomegalovirus (CMV)-seronegative Kidney Transplant Recipients Receiving an Organ from a CMV-seropositive Donor<br>Master Clinical Study Agreement      | Astellas Pharma Global Development, Inc.  |
| Protocol #0113-CL-1004 "A Randomized, Double-Blind, Placebo-Controlled, Phase 3 Trial to Evaluate the Protective Efficacy and Safety of a Therapeutic Vaccine, ASP0113, in Cytomegalovirus (CMV)-Seropositive Recipients Undergoing Allogeneic, Hematopoietic Cell Transplant (HCT)" | Astellas Pharma Global Development, Inc.  |
| A Randomized, Double-Blind, Multinational Study to Prevent Major Vascular Events with Ticagrelor Compared to Aspirin(ASA) in Patients with Acute Ischaemic Stroke or TIA [SOCRATES]  | Astra Zeneca                              |
| Evaluation of ATMi and Irradiation Combinations in Orthotopic Glioblastoma Murine Models   | Astra Zeneca                              |
| GOG-3004: A Phase III, Randomised, Double Blind, Placebo Controlled, Multicentre Study of Olaparib Maintenance Monotherapy in Patients with BRCA Mutated Advanced (FIGO Stage III-IV) Ovarian Cancer following First Line Platinum Based Chemotherapy (D0818C0001)                   | Astra Zeneca                              |

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| A Phase 2, Multicenter, Multinational, Randomized, Double Blind, Placebo Controlled, Parallel-Group Study to Evaluate the Efficacy, Safety, Tolerability, and Pharmacokinetics of SUN13837 Administered 28 Doses (27/28 Days) to Adult Subjects With an Acute Ischemic Stroke | Asubio Pharmaceuticals, Inc. |
| ASBI 801 - Simplified-STroke REhabilitation Assessment of Movement (S_STREAM) Scale in Subjects Obtained Between 24 and 48 Hours of a Non-hemorrhagic Ischemic Stroke..... Protocol #ASBI 801   | Asubio Pharmaceuticals, Inc. |
| Multicenter, Open-label, Historically Controlled, Phase III Study to Assess the Efficacy, Tolerability, Safety and Pharmacokinetics of Kedrion IVIG 10% in Adult and Pediatric Subjects with Primary Immunodeficiency (PID)- Protocol Number KB052                            | Atlantic Research Group      |
| AtriCure Synergy Ablation Lesions for Non-Paroxysmal Forms of Atrial Fibrillation Treatment during Concomitant On-Pump Endo/Epicardial Cardiac Surgery  | AtriCure, Inc.               |
| Pivotal Study of Dual Epicardial & Endocardial Procedure (DEEP) Approach for Treatment of Subjects with Persistent or Long Standing Persistent Atrial Fibrillation with Radiofrequency Ablation   | AtriCure, Inc.               |
| A Comparative Study of the ReCell Device and Autologous Split-thickness Meshed Skin Graft in the Treatment of Acute Burn Injuries....Protocol #CTP001-5   | Avita Medical, LLC           |
| A Prospective Clinical Evaluation of Biomarkers of Traumatic Brain Injury   | Banyan Biomarkers, Inc.      |
| A Prospective, Multi-Center Study of the Bard® Denali™ Retrievable Inferior Vena Cava Filter System   | Bard Peripheral Vascular     |
| A Tube-Deployed Dropsonde SUAS for extended Surface Sea Temperature Measurement   | Barron Associates            |
| Multi-modal Application for the Perception of Spaces (MAPS)   | Barron Associates            |
| Tube Launched UAV with Glide to Hover Transition  | Barron Associates            |
| Assessment of Tobacco Products Pharmacology and Behaviors   | Battelle Memorial Institute  |
| A Phase 3 prospective, uncontrolled, multicenter study evaluating the pharmacokinetics, efficacy safety and immunogenicity of Bax855 in previously treated pediatric patients with hemophilia   | Baxter International Inc.    |
| BAY 59-7939/14373 4-week, open-label, multiple-dose study of the safety and the pharmacokinetic and pharmacodynamic properties of the oral direct factor Xa   | Bayer Inc.                   |
| A Phase II/III Multicenter, Partially Randomized, Open Label Trial Investigating Safety and Efficacy of On-Demand and Prophylactic Treatment with BAY 94-9027 in Severe Hemophilia A.....Protocol #BAY 94-9027...Subproject for Institution # PT104546                        | Bayer Inc.                   |
| A Randomized, Double-Blind, Placebo-controlled Phase-III Study of Adjuvant Regorafenib Versus Placebo for Patients with Stage IV Colorectal Cancer After Curative Treatment of Liver Metastases (BAY 73-4506/15983)   | Bayer Inc.                   |
| An Open-Label Phase IIIb Study of Regorafenib in Patients with Metastatic Colorectal Cancer (CRC) Who Have Progressed After Standard Therapy...Protocol #BAY 73-4506/15967  | Bayer Inc.                   |
| Master Clinical Trial Agreement   | Bayer Inc.                   |
| A Randomized, Double Blind, Placebo Controlled Phase 3 Study to Investigate the Efficacy and Safety of Progesterone in Patients with Severe Traumatic Brain Injury  | BHR Pharma, LLC              |

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| A Multicenter, Global, Observational Study to Collect Information on Safety and to Document the Drug Utilization of Tecfidera (Dimethyl Fumarate) When Used in Routine Medical Practice in the Treatment of Multiple Sclerosis (ESTEEM)  | Biogen Idec, Inc.                          |
| A Multicenter, Open-Label, Single-Arm Study of Gastrointestinal Tolerability in Patients with Relapsing Forms of Multiple Sclerosis Receiving Tecfidera (dimethyl fumarate) Delayed-Release Capsules (MANAGE)  | Biogen Idec, Inc.                          |
| Controlled High Risk AVONEX Multiple Sclerosis Prevention Study In Ongoing Neurological Surveillance: CHAMPIONS Continuation.....Protocol# US 04-09-AVX  | Biogen Idec, Inc.                          |
| Master Agreement   | Biogen Idec, Inc.                          |
| Phase I Trial of Dimethyl Fumarate, Temozolomide, and Radiation Therapy in Glioblastoma Multiforme   | Biogen Idec, Inc.                          |
| EP Fellowship 2014-2015  | Biosense Webster, Inc.                     |
| NaviStar ThermoCool Catheter for the Radiofrequency Ablation of Drug Refractory Recurrent Symptomatic Paroxysmal Atrial Fibrillation PMA P0300031/S014   | Biosense Webster, Inc.                     |
| nMARQ™ Pulmonary Vein Isolation System for the Treatment of Paroxysmal Atrial Fibrillation   | Biosense Webster, Inc.                     |
| ThermoCool Smart Touch Catheter for the Treatment of Symptomatic Paroxysmal  | Biosense Webster, Inc.                     |
| ThermoCool SmartTouch Catheter for the Treatment of Symptomatic Paroxysmal Atrial Fibrillation - IDE Study - Study Start-up Documents  | Biosense Webster, Inc.                     |
| 1241.36 A phase III randomised, partially double-blind and placebo-controlled study of BI 207127 in combination with faldaprevir and ribavirin for chronic genotype 1 hepatitis C infection in an extended population of treatment naïve patients that includes those ineligible to receive peginterferon  | Boehringer Ingelheim Pharmaceuticals, Inc. |
| A Phase III, case series clinical study of the reversal of the anticoagulant effects of dabigatran by intravenous administration of 5.0g idarucizumab (BI 655075) in patients treated with dabigatran etexilate who have uncontrolled bleeding or require emergency surgery or procedures. RE-VERSE AD (A Study of the RE-VERSAL Effects of Idarucizumab on Active Dabigatran) Trial | Boehringer Ingelheim Pharmaceuticals, Inc. |
| A Phase III, randomised, double-blind and placebo-controlled study of once daily BI 201335 120 mg for 12 weeks in combination with pegylated interferon-α and ribavirin in treatment-naïve patients with genotype 1 chronic hepatitis C infection... Protocol#1220.47  | Boehringer Ingelheim Pharmaceuticals, Inc. |
| Proposal to Evaluate the Development of a Heterogeneous Asymmetric Hydrogenation Catalyst  | Boehringer Ingelheim Pharmaceuticals, Inc. |
| Safety and Efficacy of 240 mg BI 201335 Once Daily in Combination with Pegylated Interferon Alpha 2a and Ribavirin for Treatment of Chronic Hepatitis C (HCV) Genotype 1 Infection in HIV/HCV-co-Infected Patients.....Protocol #1220.19   | Boehringer Ingelheim Pharmaceuticals, Inc. |
| The Anti-Inflammatory Effects of Tiotropium Bromide in IL-13 Transformed Human Airway Cells  | Boehringer Ingelheim Pharmaceuticals, Inc. |
| Providing Direct Benefits Counseling in Support of the SSA BASS Efforts to Assist Beneficiaries to Pursue Their Employment Goals   | Booz, Allen, Hamilton, Inc.                |
| 2014-2015 EP Fellowship  | Boston Scientific                          |
| CAPT ure Information Via Automatic Threshold Evaluation (CAPTIVATE)  | Boston Scientific                          |
| Image Ready™ MR Conditional Pacing System (SAMURAI)  | Boston Scientific                          |

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| Longitudinal Surveillance Study of the 4-SITE Lead/Header System (LSS of 4-SITE)  | Boston Scientific                             |
| Multisensor Chronic Evaluations in Ambulatory Heart Failure Patients (MultiSENSE)   | Boston Scientific                             |
| AIDS Clinical Trial Group Study Co-Chair  | Brigham & Women's Hospital                    |
| Dapagliflozin Effect on CardiovascuLAR Events: A Multicenter, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Effect of Dapagliflozin 10 mg Once Daily on the Incidence of Cardiovascular Death, Myocardial Infarction or Ischemic Stroke in Patients with Type 2 Diabetes (DECLARE TIMI58)-Prime Sponsor ASTRA ZENECA | Brigham & Women's Hospital                    |
| Evaluation of Yoga for Substance Use Risk Factors in the High School Setting  | Brigham & Women's Hospital                    |
| Master Service Agreement CALGB/Case Study by BWH  | Brigham & Women's Hospital                    |
| Master Agreement - Clinical Trial: PSA CALGB Member Institution #375: Cancer and Leukemia Group B Pathology Reimbursement   |   |
| Master Clinical Trial Agreement   | Bristol-Myers Squibb Company                  |
| BTG-PR005-002- A Randomized, Double-Blind, Placebo-Controlled Study Comparing CroFabA versus Placebo with Rescue Treatment for Copperhead Snake Envenomation. BTG International=Sponsor, Chiltern=CRO   | BTG International Inc.                        |
| A Randomized, Placebo Controlled Multi Center Study of the Efficacy PK and PD of IV Acetaminophen for the Treatment of Acute Pain in Pediatric Patients   | Cadence Pharmaceuticals, Inc.                 |
| S-ICD Post Approval Clinical Study (EFFORTLESS)   | Cameron Health                                |
| A Phase IIa Study of the Safety, Tolerability and Hemodynamic Effects of a Continuous 6-hour Intravenous Infusion of CXL-1427 in Hospitalized Patients with Systolic Heart Failure  | Cardioxyl Pharmaceuticals, Inc.               |
| A Phase 3, Multicenter, Randomized, Double-Blind Study to Compare the Efficacy and Safety of Oral Azacitidine Plus Best Supportive Care Versus Placebo Plus Best Supportive Care in Subjects With Red Blood Cell Transfusion-Dependent Anemia and Thrombocytopenia Due to IPSS Lower-Risk Myelodysplastic Syndromes                       | Celgene Corporation                           |
| A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study to Compare Efficacy and Safety of Oral Azacitidine Plus Best Supportive Care Versus Best Supportive Care as Maintenance Therapy in Subjects with Acute Myeloid Leukemia in Complete Remission   | Celgene Corporation                           |
| A Phase II Study of the Use of 5-Azacytidine as Pre-Transplant Cyto reduction Prior to Allogeneic Stem Cell Transplantation for High Risk Myelodysplastic Syndromes   | Celgene Corporation                           |
| Master Clinical Study Agreement   | Celgene Corporation                           |
| CellDex CDX301-03: CDX for the Mobilization and Transplantation of Allogeneic Blood Cell Grafts   | CellDex Therapeutics                          |
| Clinical Education for VCU Family Medicine Residents FY15   | Chippenham and Johnston Willis Hospital, Inc. |
| A Multicenter, randomized, double-blind, placebo-controlled, phase 3 study to evaluate the efficacy and safety, of SA237 as monotherapy in patients wioptica (NMO) and Neu...   | Chugai Pharmaceutical Co. LTD                 |

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| PARACHUTE IV: Percutaneous Ventricular Restoration in Chronic Heart Failure due to Ischemic Heart Disease<br>SPONSOR: CardioKinetix (CRO:Clinipace)  | Clinipace Worldwide  |
| Master Research Agreement  | Cochlear Americas  |
| Master Agreement   | Commonwealth Center for Advanced Logistics Systems (CCALS) |
| A Placebo-Controlled, Multicenter, Double-Blind, Randomized Trial of IDN-6556 in Patients with Severe Alcoholic Hepatitis and Contraindications to Corticosteroid Therapy (TREAT-Mayo)   | Conatus Pharmaceuticals Inc.                               |
| Post-Market Study Plan No. 12-013 "Zenapro™ Hybrid Hernia Repair Device for Ventral Hernia Repair"   | Cook Biotech, Inc.   |
| A Prospective, Randomized, Multi-Center, Double-Blind Trial to Assess the Effectiveness & Safety of Different Durations of Dual Anti-Platelet Therapy (DAPT)...Protocol# P09-6301  | Cordis Corporation   |
| A Multicenter Post-Market Registry for the Evaluation of the CorPath 200 System Effectiveness in Percutaneous Coronary Interventions   | Corindus, Inc.   |
| CNDO 201 TRUST-I: A Phase II Study to Evaluate the Efficacy & Safety of 12 weeks of Treatment with Oral 201 Trichuris Suis Ova Suspension (TSO) as Compared to Placebo, Followed By a 12 Week Open-Label Treatment Period in Patients with Moderately to Severely Active Crohn's Disease   | Coronado Biosciences, Inc                                  |
| A double-Blind, randomized, placebo-controlled, cross-over study to evaluate the clinical efficacy and safety of subcutaneous administration of human plasma-derived C1-esterase inhibitor in the prophylactic treatment of hereditary angioedema - Study No. CSL830_3001  | CSL Behring  |
| Protocol Number CSL830-3002 - "An open-label, randomized study to evaluate the long-term clinical safety and efficacy of subcutaneous administration of human plasma-derived C1-esterase inhibitor in the prophylactic treatment of hereditary angioedema"   | CSL Behring  |
| A Multi-Center, Partially Blinded, Maximum Tolerated Multiple Dose Escalation, Phase 1 Clinical Trial to Evaluate the Safety of GR-MD-02 in Subjects with Non-Alcoholic Steatohepatitis (NASH) with Advanced Hepatic Fibrosis (GT-020) SPONSOR: GALECTIN   | CTI Clinical Trial and Consulting Services                 |
| A Three-Part, Multi-Centre, Randomised, Double-Blind, Placebo-Controlled, Parallel-Group, Sequential Adaptive, Phase II Study to Evaluate the Safety, Tolerability and Efficacy of OPN305, a Humanised Monoclonal Antibody that Blocks Toll-Like Receptor 2, in Renal Transplant Patients at High Risk of Delayed Graft Function | CTI Clinical Trial and Consulting Services                 |
| A Phase 3 Randomized Double-blind Study Comparing TR-701 FA and Linezolid in Ventilated Gram-positive Nosocomial Pneumonia   | Cubist Pharmaceuticals, Inc                                |
| Culpeper Downtown Enhancement Strategy   | Culpeper Renaissance, Inc                                  |
| A Multi-Center, Double-Blind, Randomized, Controlled Study to Determine the Safety and Pharmacokinetics of Ifetroban Injection in Hepatorenal Syndrome (CPT-IFE-001)   | Cumberland Pharmaceuticals Inc.                            |
| Rheos Pivotal Trial  | CVRx, Inc.   |
| ENSURE in AF Study (Edoxaban vs. Warfarin in Subjects Undergoing Cardioversion of AF)  | Daiichi Sankyo Pharma Development                          |



RA Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of ARQ 197 Plus Erlotinib Versus Placebo Plus Erlotinib in Previously Treated Subjects with Locally Advanced or Metastatic, Non-Squamous, Non-Small-Cell Lung Cancer (NSCLC)....Protocol #ARQ197-A-U302

Daiichi Sankyo Pharma Development

A Prospective, Multi-Center Study of Phasix Mesh for Ventral Incisional Hernia Repair, DVL-HE-011

Davol Inc.

Energy Harvesting: Developing Piezoelectric Materials for Passive Energy Harvesting

Dominion Energy, Inc.

Translational Study 5-Cholesten 3,25-diol 3-Sulfate as New Medicine for Therapy of Metabolic Disorders

DURECT Corporation

Measuring contact pathway biomarkers in subjects diagnosed with hereditary angioedema and non-HAE during and in between and acute attack, or diagnosed with other inflammatory diseases, using novel assays to measure protein markers of inflammatory disease biology, including plasma kallikrein and pKal degradation products

Dyax Corp.

B067: Utility of fibroscan™ in the noninvasive assessment of liver disease

Echosens

Open Label Pilot Study W/an Extension Phase to Evaluate the Pharmacokinetics, and to Generate Preliminary Safety, Tolerability, Efficacy of Perampanel

Eisai, Inc.

CD INFORM - Investigating Natalizumab through further observational research and monitoring Protocol: ELN100226-CD451

Elan Pharmaceuticals

CBH - A Randomized Phase 3 Study of LY2835219 verses Erlotinib in Patients with Stage IV NSCLC with a Detectable KRAS Mutation Who Have Progressed After Platinum-Based Chemotherapy

Eli Lilly

Translate-ACS Study. Treatment with ADP Receptor Inhibitors: Longitudinal Assessment of Treatment Patterns and Events After Acute Coronary Syndrome....Protocol #H7T-US-B007

Eli Lilly

A Multicenter, Randomized, Double-Blind, Placebo-Controlled Phase III Trial of Tecemotide Versus Placebo in Subjects with Completed Concurrent Chemo-Radiotherapy for Unresectable Stage III Non-Small Cell Lung Cancer (NSCLC)

EMD Serono, Inc

Master Agreement

EMD Serono, Inc

PROTOCOL EC-FV-06: A RANDOMIZED DOUBLE-BLIND PHASE 3 TRIAL COMPARING EC145 AND PEGYLATED LIPOSOMAL DOXORUBICIN (PLD/DOXIL/CAELYX) IN COMBINATION VERSUS PLD IN PARTICIPANTS WITH PLATINUM-RESISTANT OVARIAN CANCER

Endocyte, Inc

EMPOWER Clinical Trial: Vagal blocking for Obesity Control

EnteroMedics

ReCharge

EnteroMedics

Content Evaluation of the Gastroparesis Cardinal Symptom Index-Daily Diary for Use in Patients Diagnosed with Parkinson's Disease and Gastroparesis

Evidera

The Prediction Value of BreathID, C-Methacetin Breath Test for Hepatic Decompensation; a Retrospective Analysis

Exalenz Biosciences Ltd

CBH

High Flow Humidification Therapy in Cystic Fibrosis

Fisher & Paykel Healthcare, Ltd

A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Relapse Prevention Study with Vilazodone in Patients with Major Depressive Disorder

Forest Research Institute

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| Computational Intelligence based algorithms for BEMS predictive modeling and decision making  | Fujitsu Laboratories of America         |
| A Randomized, Multicenter, Open-Label Trial Phase III Trial Comparing Trastuzumab Plus Pertuzumab Plus a Taxane Following Anthracyclines Versus Trastuzumab Emtansine Plus Pertuzumab Following Anthracyclines As Adjuvant Therapy in Patients with Operable Her2-Positive Primary Breast Cancer                    | Genentech, Inc.                         |
| Genentech Master Agreement  | Genentech, Inc.                         |
| Richmond Defense & Veterans Brain Injury Center   | General Dynamics Information Technology |
| Choosing Neoadjuvant Chemotherapy versus Hormonal Therapy for Breast Cancer Base (MCC-13311)/ PI Initiated  | Genomic Health, Inc.                    |
| Defibrotide for Patients with Hepatic Veno-Occlusive Disease: A Treatment IND Study   | Gentium                                 |
| Reduced Intensity Myeloablative Total Body Irradiation and Thymoglobulin Followed by Allogeneic Peripheral Blood Stem Cell Transplantation  | Genzyme Corporation                     |
| SVCARB07609 Efficacy and Safety of Sevelamer Carbonate in Hyperphosphatemic Pediatric Patients with Chronic Kidney Disease  | Genzyme Corporation                     |
| A Phase 2, Randomized, Open-label Study to Evaluate the Efficacy and Safety of GS-4774 in Combination with Tenofovir Disoproxil Fumarate (TDF) for the Treatment of Subjects with Chronic Hepatitis B and who are Currently not on Treatment  | Gilead Sciences, Inc.                   |
| (GS-US-321-0106) A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase Like Molecule 2 (LOXL2) in Subjects with Compensated Cirrhosis Secondary to Non-Alcoholic Steatohepatitis (NASH).          | Gilead Sciences, Inc.                   |
| A Phase 2, Randomized, Double-Blind, Placebo-Controlled, Multi-Center Study to Assess the Efficacy and Safety of GS-6624 in Subjects with Idiopathic Pulmonary Fibrosis   | Gilead Sciences, Inc.                   |
| A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Multicenter Study of Aztreonam for Inhalation Solution (AZLI) in a Continuous Alternating Therapy (CAT) Regimen of Inhaled Antibiotics for the Treatment of Chronic Pulmonary Pseudomonas Aeruginosa Infection in Subjects with Cystic Fibrosis            | Gilead Sciences, Inc.                   |
| A Randomized, Multicenter Study of First-Line Ambrisentan and Tadalafil Combination Therapy... Protocol# GU-US-300-0140   | Gilead Sciences, Inc.                   |
| GS-US-248-0122: A Long Term Follow-up Registry for Subjects Who Achieve a Sustained Virologic Response to Treatment in Gilead-Sponsored Trials in Subjects with Chronic Hepatitis C Infection   | Gilead Sciences, Inc.                   |
| comments: HCV Registry Extension protocol for subjects that achieved an SVR   |   |
| GS-US-337-0108: A Phase 3, Multicenter, Randomized, Open-Label Study to Investigate the Efficacy and Safety of Sofosbuvir/Ledipasvir Fixed-Dose Combination ? Ribavirin for 8 Weeks and Sofosbuvir/Ledipasvir Fixed-Dose Combination for 12 Weeks in Treatment-Naïve Subjects with Chronic Genotype 1 HCV Infection | Gilead Sciences, Inc.                   |
| GS-US-337-0115 (ION 4) A Phase 3, Multicenter, Randomized, Open-Label Study to Investigate the Efficacy and Safety of Sofosbuvir/Ledipasvir Fixed-Dose Combination for 12 Weeks in Subjects with Chronic Genotype 1 Hepatitis C Virus (HCV) and Human Immunodeficiency Virus (HIV)-1 Coinfection                    | Gilead Sciences, Inc.                   |



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| GS-US-337-0123: A Phase 2, Multicenter, Open-Label Study to Investigate the Safety and Efficacy of Sofosbuvir/Ledipasvir Fixed-Dose Combination + Ribavirin Administered in Subjects Infected with Chronic HCV who have Advanced Liver Disease or are Post-Liver Transplant  | Gilead Sciences, Inc.       |
| GS-US-352-0101: A Phase 3, Randomized, Double-blind, Active-controlled Study Evaluating Momelotinib vs. Ruxolitinib in Subjects with Primary Myelofibrosis (PMF) or Post-Polycythemia Vera or Post-Essential Thrombocythemia Myelofibrosis (Post-PV/ET MF)   | Gilead Sciences, Inc.       |
| Master Clinical Trial Agreement  | Gilead Sciences, Inc.       |
| Protocol GS-US-248-0123, "A Long Term Follow-up Registry Study of Subjects Who Did Not Achieve Sustained Virologic Response in Gilead-Sponsored Trials in Subjects with Chronic Hepatitis C Infection  | Gilead Sciences, Inc.       |
| Protocol GS-US-321-0102 A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase Like Molecule 2 (LOXL2) in Subjects with Primary Sclerosing Cholangitis (PSC)  | Gilead Sciences, Inc.       |
| Protocol GS-US-321-0105 A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety, and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase Like Molecule 2 (LOXL2) in Subjects with Advanced Liver Fibrosis but not Cirrhosis Secondary to Non-Alcoholic Steatohepatitis (NASH). - Subproject for Institution # PT103761 | Gilead Sciences, Inc.       |
| Heterogeneous Oxidation in Catalysis in Continuous Flow  | GlaxoSmithKline             |
| MMR-160 GSK Biologicals' MMR Vaccine (209762) Compared to Merck & Co., Inc.'s MMR Vaccine as a First Dose Both Co-Administered with Varivax, Havrix and Prevna 13 (Subset of Children) to Healthy Children 12 to 15 Months of Age  | GlaxoSmithKline             |
| Treatment of Patients with Pulmonary Arterial Hypertension and Right Heart Failure.  | GlaxoSmithKline             |
| Alpha-1 Anti-Trypsin (AAT) in ST-Segment Elevation Acute Myocardial Infarction (STEMI)   | Grifols, Inc.               |
| Cardioprotective Effects of Prolastin C in Experimental Acute Myocardial Infarction: A Pre-clinical Translational Study  | Grifols, Inc.               |
| Confidential Disclosure Agreement- (GT11307) A Prospective, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of Preoperative Antithrombin Supplementation in Patients Undergoing High-Risk Cardiac Surgery with Cardiopulmonary Bypass'   | Grifols, Inc.               |
| Master Collaboration Agreement   | Health Diagnostic Lab, Inc. |
| Qualitative Research in Cystic Fibrosis for the Development of a New Patient Reported Outcome (PRO) Measure  | Health Research Associates  |
| 2014-2015 Heart Failure Fellowship   | HeartWare                   |
| HQP 1001-SCD-007 - A Randomized, Placebo-Controlled, Phase 2 Study of HQK-1001 in Sickle Cell Disease  | HemaQuest                   |
| HEMOSONICS, LLC MASTER AGREEMENT   | HemoSonics LLC              |
| HemoSonics-VCU Cardiac Surgery Clinical Study Protocol   | HemoSonics LLC              |
| CMV-Neutralizing Activity of PC-Based Vaccines   | Hookipa Biotech AG          |
| In Vivo Interferon Gamma Regulation of HLA On Mast Cells In Human Skin   | Horizon Pharma              |

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| Treatment of Wound Infection with Novel Uncharged Silver Carbene Complexes   | IASIS Molecular Sciences            |
| A Multicenter Open-Label Extension Study for Subjects Who Participated in Study B0151003 (ADANTE II)<br>Protocol: B0151005   | ICON Clinical Research, Inc.        |
| PRIDE-HD: A Phase 2 Dose-Finding, Randomized, Parallel-Group, Double-Blind, Placebo-Controlled Study Evaluating the Safety and Efficacy of Pridopidine Versus Placebo for Symptomatic Treatment in Patients with Huntington's Disease        | ICON Clinical Research, Inc.        |
| Protocol #A3921095....Study of Oral CP-690, 550 as an induction therapy in subjects with moderate to severe ulcerative colitis   | ICON Clinical Research, Inc.        |
| Protocol# B0151003 A DOUBLE-BLIND, RANDOMIZED, PLACEBO-CONTROLLED, DOSE-RANGING STUDY TO EVALUATE THE EFFICACY AND SAFETY OF PF-04236921 IN SUBJECTS WITH CROHNS DISEASE WHO ARE ANTI-TNF INADEQUATE RESPONDERS (ANDANTE)                    | ICON Clinical Research, Inc.        |
| V419-006 Phase III of V419 in Healthy Infants when given at 2, 4 and 6 months concomitantly with Prevna 13 and Rota Teq  | ICON Clinical Research, Inc.        |
| NASH Phase II Protocol IMM124-E-2001 "A phase II, randomized, double-blind, placebo-controlled study of IMM-124E for patients with non-alcoholic steatohepatitis"  | Immuron                             |
| New Clinical Trial   |                                     |
| Evaluation of the Safety and Efficacy of the OPTIMIZER II System with Active Fixation Leads in Subjects with Heart Failure Resulting from Systolic Dysfunction: FIX-HF-5   | Impulse Dynamics, Inc.              |
| INCB 18424-268: A Randomized, Double-Blind, Phase 2 Study of Ruxolitinib or Placebo in Combination With Capecitabine in Subjects With Advanced or Metastatic HER2-Negative Breast Cancer   | Incyte Corporation                  |
| A Phase 2 Multicenter, Single Dose, Randomized, Double Blind, Placebo Controlled, Parallel Group Study Evaluating the Safety and Efficacy of Two Doses of Stannosporin in Combination with Phototherapy in Neonates. Protocol No. 64,185-204 | Infacare Pharmaceutical Corporation |
| A Double Blind, Placebo Controlled Trial of Obeticholic Acid in Patients with Moderately Severe Alcoholic Hepatitis (AH) (TREAT - Indiana INT-747))  | Intercept Pharmaceuticals Inc.      |
| A Randomized, Double-Blind, Placebo-Controlled, Phase 3 Study of the Efficacy and Safety of Pirfenidone in Patients with Idiopathic Pulmonary Fibrosis.....Protocol #PIPE-016  | InterMune, Inc.                     |
| A Treatment Protocol to Allow Patients in the US with Idiopathic Pulmonary Fibrosis Access to Pirfenidone Protocol No. PIPF-031  | InterMune, Inc.                     |
| An Open-Label Study of the Long-Term Safety of Pirfenidone in Patients with Idiopathic Pulmonary Fibrosis (IPF) Who Complete the CAPACITY Studies  | InterMune, Inc.                     |
| A Randomized, Double-Blind, Placebo-Controlled, Study of the Efficacy of Intranasal Midazolam in the Outpatient Treatment of Subjects with Seizure Clusters (ARTEMIS 1): P261-401 (SPONSOR: UPSHER SMITH)                                    | inVentiv Health Inc.                |

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| Prospective, Multicenter, Randomized, Double-Blind, Placebo-Controlled Trial Comparing REMICADE (infliximab) and Placebo in the Prevention of Recurrence in Crohn's Disease Patients Undergoing Surgical Resection Who Are at Risk of Recurrence.....Protocol# REMICADE CRD3001                     | Janssen Biotech, Inc.             |
| Training Course for Continuous Regional Anesthesia for Rib Fractures-Tunnel Catheter Placement Technique  | Kimberly-Clark Corporation        |
| Kuwait Training Gate-Training and Technical Assistance  | Kuwait Training Gate              |
| Subproject for Institution # PT106389   | Kuwait Training Gate              |
| Growth of GaN-based heterostructures on Kyma FLAAT substrates   | Kyma Technologies, Inc.           |
| Brain-Computer Interface-based Volition Control Device  | Ladenburg Funding, Inc. (The)     |
| Cloud Based Collaboration for Clinical Trials, Research and Training  | Leidos Biomedical Research        |
| NCI-Match   | Leidos Biomedical Research        |
| The Tissue and Data Acquisition and Analysis Core (TDAAC) to Provide Clinical Specimens in Support of NCI's Clinical Assay Development Program (CADP) Projects  | Leidos Biomedical Research        |
| PROPOSAL TO TEST Lu AA21004 AND OTHER COMPOUNDS IN A SUSTAINED ATTENTION TASK (VISUAL SIGNAL DETECTION)IN RATS  | Lundbeck, Inc.                    |
| YES Graduate Program  | Maersk                            |
| Evaluation of Purified Poloxamer 188 in Children in Crisis (Epic): A Phase 3 Randomized, Double-Blind, Placebo-Controlled, Multicenter Clinical Trial of ANX-188 (Purified Poloxamer 188) Injection in Children with Sickel Cell Didease Experiencing Vasco-Occlusive Crisis                        | Mast Therapeutics, Inc            |
| Evaluation of Purified Poloxamer 188 in Vaso-Occlusive Crisis of Sickel Cell Disease (EPIC): A Phase 3, Randomized, Double Blind, Placebo-Controlled Multicent Clinical Trail of MST-188 (purified poloxamer 188) Injection in Subjects with Sickel Cell Disease Experiencing Vaso-Occlusive Crisis | Mast Therapeutics, Inc            |
| Disability Research Consortium (DRC)  | Mathematica Policy Research, Inc. |
| Health Quality Research (Interest Funded Projects)  | Mathematica Policy Research, Inc. |
| NIHCR Health Policy Research, Inc.  | Mathematica Policy Research, Inc. |
| Redesigning Diabetes Work Processes for Population-based Primary Care   | Mathematica Policy Research, Inc. |
| Safety Net Hospitals and the ACA  | Mathematica Policy Research, Inc. |
| An Observational Study to Evaluate the Relationship of Nasal Mucus Properties and Symptoms in Acute Rhinosinusitis  | McNeil Consumer Healthcare        |
| Effect of Long Acting Antihistime on Opioid-Induced Pruritus: A Double-Blind Placebo Controlled Study   | McNeil Consumer Healthcare        |
| Efficacy and Safety Study of Cenicriviroc for the Treatment of NASH in Adult Subjects with Liver Fibrosis (CENTAUR)   | Medpace, Inc.                     |
| AdaptResponse   | Medtronic                         |
| Artifact-free Cone-beam CT Construction for Pedicle Screw and DBS Probe Localization  | Medtronic                         |

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| Endeavor Drug eluting stenting: Understanding Care, Antiplatelet agents and Thrombotic Events (EDUCATE).....Protocol# IP114   | Medtronic                          |
| PainFree SST Clinical Study Medtronic   | Medtronic                          |
| Renal Denervation in Patients with Uncontrolled Hypertension (Symplicity HTN-3)....Protocol #IP125  | Medtronic                          |
| A phase I Randomized, Double Blind, Placebo Controlled, Dose-Escalation Study to Evaluate the Safety, Tolerability and Immunogenicity of the Human CMV Vaccine(V160) in Healthy Adults  | Merck & Co., Inc.                  |
| A Phase III, Double Blind, Randomized, Placebo-Controlled, Multicenter Clinical Trial to Study the Safety, Tolerability, Efficacy, and Immunogenicity of V212 in Recipients of Autologous Hematopoietic Cell Transplants (HCTs)....Protocol #V212-001 | Merck & Co., Inc.                  |
| A Study of MK-3415, MK-6072, and MK-3415A in Participants Receiving Antibiotic Therapy for Clostridium Difficile Infection (MK-3415A-001 AM2) (MODIFY I)  | Merck & Co., Inc.                  |
| Cellular Responses to CMV   | Merck & Co., Inc.                  |
| Immune Responses to CMV in Pregnancy  | Merck & Co., Inc.                  |
| A Phase 3, Randomized, Double-Blind Multicenter Study Comparing Oral MLN9708 C16014 Plus Lenalidomide and Dexamethasone Versus Placebo Plus Lenalidomide and Dexamethasone in Adult Patients With Newly Diagnosed Multiple Myeloma                    | Millennium Pharmaceuticals         |
| A Randomized, Open-Label, Phase 3 Trial of A+AVD Versus ABVD as Frontline Therapy in Patients with Advanced Classical Hodgkin Lymphoma  | Millennium Pharmaceuticals         |
| MCC 03740: Phase 1 Trial of Dacarbazine and Bortezomib in Melanoma and Soft Tissue Sarcoma  | Millennium Pharmaceuticals         |
| Phase I Trial of Bortezomib and Romidepsin in Patients with Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma....Protocol #RM-CLL-PI-0006   | Millennium Pharmaceuticals         |
| DAR Services for Molecules for Health   | Molecules for Health               |
| Continuous Production of Cobalt Nanoparticles   | Nanofoundry, LLC.                  |
| Evaluation of Oral Antibiotic Use with Nasal Saline Irrigation for the Treatment of Rhinosinusitis  | NeilMed Pharmaceuticals, Inc.      |
| A Prospective Controlled Post-Approval Study of NeoMend ProGEL Sealant in the Treatment of Visible Pleural Air Leaks after Standard Pleural Closure   | Neomend, Inc.                      |
| Confidential Disclosure Agreement - "A Prospective, Randomized Study to Compare Progel® Sealant to Gelfoam® Plus as an Adjunct for the Control of Bleeding after Conventional Hemostasis in Subjects Undergoing Thoracic Aortic Surgery," NEO13-100   | Neomend, Inc.                      |
| A Randomized, Double-Blind, Placebo-Controlled, Dose-Escalation Study of NNZ-2566 in Patients with Traumatic Injury (TBI)   | Neuren Pharmaceuticals Limited     |
| Anti-epileptogenic Effects of Novel Proximagen Compounds in the SE Model  | NeuroDetective International, Inc. |
| New Editions Disability Research Facilitation   | New Editions Consulting, Inc       |

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| A Phase II Double-Blinded, Randomized, Placebo-Controlled Study of Docetaxel in Combination with 1-methyl-D-tryptophan (indoximod) in Metastatic Breast Cancer  | NewLink Genetics Corporation         |
| A Phase III Study of Chemotherapy and Chemoradiotherapy With or Without HyperAcute Pancreatic Cancer Vaccine in Subjects with Surgical Resected Pancreatic Cancer....Protocol #NLG0405  | NewLink Genetics Corporation         |
| NNS RFQ# 6000435719, Independent Study on the Licensing Feasibility of Advanced Nuclear Reactor Concepts Using Natural Circulation  | Newport News Shipbuilding            |
| Robotics for Tank Inspection Phase 2  | Newport News Shipbuilding            |
| A 24 month, randomized, controlled study to evaluate the efficacy and safety of concentration-controlled everolimus plus reduced tacrolimus compared to standard tacrolimus in recipients of living donor liver transplants. (RAD001H)  | Novartis Pharmaceuticals Corporation |
| A 24-Week, open-label, parallel-group, interventional phase IV study comparing Tobramycin Inhalation Powder administration once daily continuously versus TIP administration bid in 28 day on/off cycles for the treatment of pulmonary Pseudomonas Aeruginosa in patients with Cystic Fibrosis   | Novartis Pharmaceuticals Corporation |
| A 26 Week, Randomized, Active-Controlled Safety Study of Double-blind Formoterol Fumarate in Free Combination With an Inhaled Corticosteroid Versus and inhaled Corticosteroid in Adolescent and Adult Patients with Persistent Asthma  | Novartis Pharmaceuticals Corporation |
| A 5-year, Prospective, Non-Intentional Multicenter Registry in Sickle Cell Disease patients...Protocol# C1CL670AUS38...Subproject for Institution # PT102299  | Novartis Pharmaceuticals Corporation |
| A Phase II Randomized, Multicenter Study of Treatment-free Remission in Chronic Myeloid Leukemia in Chronic Phase (CML-CP) Patients Who Achieve and Sustain MR4.5 after Switching to Nilotinib  | Novartis Pharmaceuticals Corporation |
| A Phase III, Multicenter, Randomized, Open-label Study of Oral LDK378 Versus Standard Chemotherapy in Adult Patients with ALK-rearranged (ALK-positive) Advanced Non-Small Cell Lung Cancer Who Have Been Treated Previously with Chemotherapy (Platinum Doublet) and Crizotinib  | Novartis Pharmaceuticals Corporation |
| A Randomized, Double-Blind, Placebo-Controlled, Event-Driven Trial of Quarterly Subcutaneous Canakinumab in the Prevention of Recurrent Cardiovascular Events Among Stable Post-Myocardial Infarction Patients with Elevated hsCRP....Protocol # CACZ885M2301.....Subproject for Institution # PT102299   | Novartis Pharmaceuticals Corporation |
| A Randomized, Multicenter, Double-blind, Placebo-controlled, Parallel-group, 24-week Pilot Study to Assess the Efficacy, Safety and Tolerability of LCQ908 in Patients with Non-alcoholic Fatty Liver Disease (NAFLD)   | Novartis Pharmaceuticals Corporation |
| CTBM100C2412: A multi-center, human factors engineering (HFE) usability study in cystic fibrosis patients to validate the approved instructions for use (IFU) of TOBI Podhaler (tobramycin inhalation powder) using placebo capsules  | Novartis Pharmaceuticals Corporation |
| Interleukin-1 blockade with Canakinumab to Improve Exercise Capacity in Patients with Chronic Systolic Heart Failure and Elevated hs-CRP. A Randomized, Double-blind, Placebo-controlled, Event Driven Trial of Quarterly Subcutaneous Canakinumab in the Prevention of Recurrent Cardiovascular Events..... Protocol #CACZ885M2301 CANTOS SubStudy | Novartis Pharmaceuticals Corporation |
| Master Agreement  | Novartis Pharmaceuticals Corporation |
| Prospective, double-blind, multicenter study evaluating the safety of repeat doses of IV serelaxin in subjects with chronic heart failure.  | Novartis Pharmaceuticals Corporation |

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| Serelaxin Therapy for Ischemic Cardiomyopathy  | Novartis Pharmaceuticals Corporation                        |
| Subproject for Institution # PT102299  | Novartis Pharmaceuticals Corporation                        |
| A single arm, phase II, open-label study to determine the efficacy of 100 mg twice daily oral dosing of Midostaurin administered to patients with Aggressive Systemic Mastocytosis or Mast Cell Leukemia +/- an Associated Hematological Clonal Non-Mast Cell Lineage Disease  |   |
| A Phase 3, Open-Label, Randomized, Multi-Center Study to Evaluate the Safety and Immunogenicity of ProQuad Vaccine When Administered Concomitantly with Novartis Meningococcal ACWY Conjugate Vaccine to Healthy Toddlers - Protocol V59P21  | Novartis Vaccines and Diagnostics                           |
| A Phase 3b, Open-Label, Randomized, Parallel-Group, Multi-Center Study to Evaluate the Safety of Novartis MenACWY Conjugate Vaccine when Administered with Routine Infant Vaccinations to Healthy Infants. Protocol No. V59P23   | Novartis Vaccines and Diagnostics                           |
| Master Clinical Trial Agreement  | Novartis Vaccines and Diagnostics                           |
| A Self Assembling Gel with Antimicrobial and Antioxidant Properties for Burns  | Novion Technologies   |
| A Multi-Centre, Open-Label, Single-Arm, and Multiple Dosing Trial On Safety of Monthly Therapy with rFXIII in Subjects with Congenital FXIII Deficiency...Protocol# F13CD-3720   | Novo Nordisk Pharmaceuticals, Inc.                          |
| Characterizing the In Vitro Effects of Pro-Hemostatic Antibodies in Blood from Severe Hemophiliacs   | Novo Nordisk Pharmaceuticals, Inc.                          |
| Impact of Coated Platelet Levels on rFVIIa Response as Measured by Thrombin Generation and Platelet Function   | Novo Nordisk Pharmaceuticals, Inc.                          |
| Master Clinical Trial Agreement  | Novo Nordisk Pharmaceuticals, Inc.                          |
| Surveillance of Safety and Efficacy of Wilate in Patients with Von Willebrand Disease (Wil 20)   | Octapharma Incorporated                                     |
| "Clinical Trial of the On-X Valve using low Dose Anticoagulation"  | On-X Life Technologies                                      |
| Phase 2 Study of Intravenous Administration of Reovirus Serotype 3 - Dearing Strain (Reolysin) in Combination with Paclitaxel and Carboplatin in Patients With Metastatic or Recurrent Non-Small Cell Lung Cancer Who Have KRAS or EGFR Activated Tumors... Protocol# REO 16   | Oncolytics Biotech, Inc.                                    |
| Randomized, Double-Blind, Multicenter Two-Stage Adaptive Phase II Study of Intravenous Administration of REOLYSIN (Reovirus Type 3 Dearing) in Combination with Paclitaxel and Carboplatin versus the Chemotherapy Alone in Patients with Metastatic or Recurrent Squamous Cell Carcinoma of the Head and Neck Who Have Progressed on or after Prior Platinum-Based Chemotherapy... Protocol# REO 18 | Oncolytics Biotech, Inc.                                    |
| Preclinical Studies Examining Interactions Between the HDAC Inhibitor Vorinostat and the Proteasome Inhibitor Carfilzomib in Malignant Human Hematopoietic Cells in Vivo and in Vivo   | Onyx Pharmaceuticals, Inc.                                  |
| Multi-Center Phase 3 Trial of Minocycline HC1 1mg Microspheres for the Use in Subjects with Peri-Implantitis: Clinical and Microbiological Evaluations   | OraPharma Inc   |
| Cannabinoid Receptor Agonists for Treatment of Chronic Pain  | Organix, Inc.   |
| An Observational Prospective Registry to Identify Demographic and Clinical Characteristics of Patients Hospitalized with Euvoletic and Hypervolemic Hyponatremia and Assess the Comparative Effectiveness of Available Treatments and the Impact on Resource Utilization....Protocol #156-10-292   | Otsuka Pharmaceutical Development & Commercialization, Inc. |



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| A Selective Metabolic Approach to Increase Phenylephrine Oral Bioavailability, Part 1: Establish the Approach   | Pfizer Inc., U.S. Pharmaceuticals Group |
| An Open-Label, Multicenter, Multiple-Dose Pharmacokinetic and 48-Week Safety and Efficacy Trial of Maraviroc in Combination with Optimized Background Therapy for the Treatment of Antiretroviral-Experienced CCR5-Tropic HIV-1 Infected Children 2-18 Years of Age   | Pfizer Inc., U.S. Pharmaceuticals Group |
| CBH Agreement: "A Phase 1B, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of F--04447943, Co-Administered with and Without Hydroxyurea, in Subjects with Stable Sickle Cell Disease."                                       | Pfizer Inc., U.S. Pharmaceuticals Group |
| Identifying a Hemostatic Assay that is Predictive of Clinical Efficacy in Blood from Hemophiliacs   | Pfizer Inc., U.S. Pharmaceuticals Group |
| Master Clinical Trial Agreement   | Pfizer Inc., U.S. Pharmaceuticals Group |
| Protocol #A3921139....A Multi-Center, Open-Label Study of CP-690, 550 In Subjects With Moderate to Severe Ulcerative Colitis (OCTAVE)   | Pfizer Inc., U.S. Pharmaceuticals Group |
| Protocol #A7281009-9002:A DOUBLE-BLIND, DOUBLE-DUMMY, RANDOMIZED, PLACEBO-CONTROLLED, PARALLEL, DOSE-RANGING STUDY TO EVALUATE THE EFFICACY AND SAFETY OF PF-00547659 IN SUBJECTS WITH MODERATE TO SEVERE ULCERATIVE COLITIS (TURANDOT)...Subproject for Institution # PT106040                               | Pfizer Inc., U.S. Pharmaceuticals Group |
| Protocol A7281010: A Multicenter Open-Label Extension Study to Assess Long-Term Safety of PF-00547659 in Subjects with Ulcerative Colitis (TURANDOT II)... Subproject for Institution # PT106040  | Pfizer Inc., U.S. Pharmaceuticals Group |
| Subproject for Institution # PT111280   | Pfizer Inc., U.S. Pharmaceuticals Group |
| Virginia Women's Stroke Prevention Initiative   | Pfizer Inc., U.S. Pharmaceuticals Group |
| Medical and Academic Partnership Visiting Professor in Rheumatology   | Pfizer Pharmaceuticals                  |
| A Multi-Center, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Investigate the Efficacy and Safety of R04995819 Versus Placebo, as Adjunctive Therapy in Patients with Major Depressive Disorder Having Inadequate Response to Ongoing Antidepressant Treatment - Protocol No. BP25712 | Pharmaceutical Research Associates      |
| A Two Part, Phase 1, Multicenter, Open-Label, Study of DKN-01 Given Intravenously<br>Part A: A Dose Escalation Study in Patients with Multiple Myeloma or Advanced Solid Tumors.<br>Part B: An Expansion Cohort in Patients with Relapsed or Refractory Non-Small Cell Lung Cancer (NSCLC)                    | Pharmaceutical Research Associates      |
| A Multicenter Phase 1/2b Study of the Bruton's Tyrosine Kinase Inhibitor, Ibrutinib (PCI-32765) in Combination with Carfilzomib (Kyprolis) in Subjects with Relapsed and Refractory Multiple Myeloma  | Pharmacyclics, Inc                      |
| Pharmacyclics Master Agreement  | Pharmacyclics, Inc                      |
| COPD Wet & Dry Weight   | Philips Healthcare                      |
| Philips Master Agreement  | Philips Healthcare                      |
| Image-guided Radiation Therapy and Brachytherapy: a Virtual Clinical Trial Database for Locally Advanced Cervical Cancer & Intermediate Risk Prostate Cancer  | Philips Radiation Oncology Systems      |
| A 14 Month Open-Label Extension Phase of the Double-Blind, Placebo-Controlled, Dose-Escalation, Parallel-Group Studies to Evaluate the Efficacy and Safety of E2007 (perampanel) Given as Adjunctive Therapy in Subjects with Refractory Partial Seizures   | PPD Development, LLC                    |

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| A Phase II, Randomized, Placebo-Controlled, Double-Blind (Sponsor Open) Study of GSK1278863, a HIF-Prolyl Hydroxylase Inhibitor, to Reduce Ischemic Events in Patients Undergoing Thoracic Aortic Aneurysm Repair (PPD)  | PPD Development, LLC               |
| An Open Label, Multicenter, Follow-Up Trial to Evaluate the Long-Term Safety and Efficacy of Brivaracetam Used as Adjunctive Treatment at a Flexible Dose Up to a Maximum of 150mg/day in Subjects Aged 16 Years or Older Suffering from Epilepsy              | PPD Development, LLC               |
| A Study to Evaluate the Efficacy and Safety of GFT505 80mg & GFT505 120mg once daily on Steatohepatitis in Patients with Non-Alcoholic Steatohepatitis (NASH). Protocol GFT505-212-7   | Premire Research International LLC |
| Monitoring Plan for Diadromous Fishes in Curles Neck Creek, James River Basin, Virginia  | Pruitt Companies                   |
| A Four-Year Blinded-Outcomes Follow-Up Study of Patients Who Received Stannosporfin or Placebo in Clinical Trial - Protocol No. 64,185-205   | Quintiles, Inc.                    |
| A Phase 3, Double-Blind, Randomized, Efficacy and Safety and Safety Comparison of Prasugrel and Placebo in Pediatric Patients with Sickle Cell Disease   | Quintiles, Inc.                    |
| A Phase II, Multicenter, Randomized, Placebo-Controlled, Double-Blind, 12-Month Study to Assess Safety and Efficacy of SelG1 With or Without Hydroxyurea Therapy in Sickle Cell Disease Patients with Sickle Cell-Related Pain Crises.                         | Quintiles, Inc.                    |
| A Randomized, Double-Blind, Controlled, Multi-Center Phase 2 Study to Evaluate the Effect of Roflumilast Plus Pioglitazone on Liver Enzymes and Liver Fat Content in Subjects with Nonalcoholic Steatohepatitis", ROF-NASH-205                                 | Quintiles, Inc.                    |
| Multicenter, Open-label, Safety and Pharmacokinetic Study of Oral Codeine Sulfate Administration in Pediatric Subjects 2 Years Old Through 17 Years Old With Post-Procedural Pain  | Quintiles, Inc.                    |
| Phase III, Multicenter, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Efficacy and Safety of Ularitide (Urodilatin) Intravenous Infusion in Patients Suffering From Acute Decompensated Heart Failure [TRUE AHF]<br>SPONSOR: CARDIORENTIS | Quintiles, Inc.                    |
| AQT90 FLEX BNP Reference Interval DC-047163  | Radiometer Medical                 |
| AQT90 FLEX BNP, NT-proBNP Method Comparison Style  | Radiometer Medical                 |
| A Point-Prevalence Study to Evaluate the Prevalence of Antibodies to Selected Porcine Viruses in Patients with Cystic Fibrosis Who Are Receiving Porcine-Derived Pancreatic Enzyme Replacement Therapy: A Harmonized Protocol Across Sponsors                  | REGISTRAT-MAPI                     |
| Respicardia Inc. Pivotal Trial of the remede System Clinical Investigational P1  | Respicardia                        |
| RFHE 4043: A Multicenter, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Efficacy, Safety, & Pharmacokinetics of Rifaximin 550 mg in Subjects with Severe Hepatic Impairment & Overt Hepatic Encephalopathy                                | Salix Pharmaceuticals, Inc.        |
| RFHE4043PK- RIFAXIMIN 550 MG with Severe Hepatic impairment and overt hepatic encephalopathy   | Salix Pharmaceuticals, Inc.        |
| RFHE4044: A MULTICENTER, RANDOMIZED, OPEN-LABEL, ACTIVE-CONTROLLED, TRIAL TO EVALUATE THE SAFETY AND EFFICACY OF RIFAXIMIN 550 MG WITH AND WITHOUT LACTULOSE IN SUBJECTS WITH A HISTORY OF RECURRENT OVERT HEPATIC ENCEPHALOPATHY ("Study")                    | Salix Pharmaceuticals, Inc.        |

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| RNLC2131:A Randomized, Double-Blind, Placebo-Controlled, Dose-ranging, Multicenter Study to Assess the Efficacy and Safety of Rifaximin Soluble Solid Dispersion (SSD) Tablets For the Prevention of Complications in Subjects with early DECompensated Liver Cirrhosis   | Salix Pharmaceuticals, Inc.        |
| A prospective, Single-Arm, Clinical-Setting Study to Describe Efficacy, Tolerability and Convenience of Teriflunomide Treatment Using Patient Reported Outcomes (PROs) in Relapsing Multiple Sclerosis (RMS) Patients (TERI-PRO)  | Sanofi US                          |
| A Randomize, Double-Blind, Placebo-Controlled, Multicenter Study Evaluating Efficacy & Safety of SAR339658 in Patients With Active Moderate to Severe Ulcerative Colitis (UC)   | Sanofi US                          |
| A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Effect of SAR236553/REGN727 on the Occurrence of Cardiovascular Events in Patients Who Have Recently Experienced an Acute Coronary Syndrome (ODYSSEY)  | Sanofi US                          |
| An International, Multi-Center Randomized, Double-Blind, Placebo-Controlled, Parallel Group Study to Evaluate the Efficacy and Safety of Two-Year Treatment with Teriflunomide 7 mg Once Daily and 14 mg, Once Daily, Versus Placebo in Patients with a clinical Episode Suggestive of Multiple Sclerosis Plus a Long-Term Extension Period..... Protocol #EFC6260....Subproject for Institution # PT102597 | Sanofi US                          |
| Master Agreement Sanofi US Services Inc.  | Sanofi US                          |
| Evaluation of the Beckman Coulter DxN HCV Viral Load Assay as an Aid in the Management of HCV-Infected Individuals Undergoing Antiviral Therapy....Protocol #HCV-01-11....Subproject for Institution # PT106001   | SC Liver Research Consortium, LLC. |
| Master Agreement  | SC Liver Research Consortium, LLC. |
| IMPROVE-IT.....Protocol #P0413  | Schering                           |
| A Phase 2 Single-Arm, Open-Label Study of Single-Agent Brentuximab Vedotin for Front-Line Therapy of Hodgkin Lymphoma (HL) in Adults Age 60 and Above   | Seattle Genetics                   |
| A Randomized, Double-Blind, Placebo-Controlled Phase 3 Study of SGN-35 (Brentuximab Bedotin) and Best Supportive Care (BSC) versus Placebo and BSC in the Treatment of Patients at High Risk of Residual Lymphoma (HL) Following Autologous Stem Cell Transplant (ASCT)   | Seattle Genetics                   |
| A Randomized, Double-blind, Placebo-controlled, Phase 3 Study of Brentuximab Vedotin and VHP (A+CHP) versus CHOP in the Frontline Treatment of Patients with CD30-positive Mature T-cell Lymphomas: the ARROVEN Study   | Seattle Genetics                   |

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| Master Agreement IS  | Seattle Genetics                               |
| JL Note: 5 year term   |  |
| Master Agreement Effective date: November 15, 2012   |  |
| Master agreement is effective thru November 14, 2017.  |  |
| Phase 2 Study of Brentuximab Vedotin with RCHOP for Diffuse Large B-Cell Lymphoma (Protocol SGN35-017)   | Seattle Genetics                               |
| SGN35-016 A Phase 1/2 Single-Arm, Open-Label Study to Evaluate the Safety and Efficacy of Brentuximab Vedotin in Combination with Bendamustine in Patients with Relapsed or Refractory Hodgkin Lymphoma (HL)                           | Seattle Genetics                               |
| SenoRx Contura Overnight Treatment Trial: Safety and Feasibility of Short-Course, Accelerated, Hypofractional Partial Breast Radiotherapy in Women wit early Stage Breast Cancer Using the Contura: A Phase II Trial Protocol# S09-001 | SenoRx   |
| Specimen Collection in the Emergency Department for The Assessment of Clinical Performance of Troponin Assays  | Siemens Healthcare Diagnostics, Inc.           |
| Confidential Disclosure Agreement: troponin immunoassay tests development project  |  |
| Siemens Master Research Agreement  | Siemens Medical Systems, Inc.                  |
| Master Agreement: Siemens Software Grant for VCU Engineering Education   | Siemens PLM Software                           |
| Siemens Software Grant for VCU Engineering Education   | Siemens PLM Software                           |
| Master Agreement CRB SSS-S-13-003178: Influenza Studies IRC003 and IRC004 Domestic Operation   | Social & Scientific Systems, Inc.              |
| Protocol IRC 003 entitled, "A Randomized Double-Blind Phase 2 Study Comparing the Efficacy, Safety, and Tolerability of Combination Antivirals (Amantadine, Ribavirin, Oseltamivir) versus Oseltamivir for the Treatment of Influenza  | Social & Scientific Systems, Inc.              |
| Evaluating the use of polymyxin B Hemoperfusion in a Randomized controlled trial of adults treated for endotoxemia and septic shock...Protocol: SDI-PMX-NA001  | Spectral Diagnostics Inc.                      |
| A Multicenter, Open Label Trail of Belinostat in Patients with Relapsed or Refractory Peripheral T-Cell Lymphoma....Protocol# PXD101-CLN-19  | Spectrum Pharmaceuticals                       |
| MCC-12517: Phase I Study of Belinostat and Bortezomib in Replapsed of Refractory Acute Leukemia/Myelodysplastic Syndrome Protocol: MCC-12517   | Spectrum Pharmaceuticals                       |
| A Prospective, Randomized, Controlled Multicenter Clinical Trial to Evaluate the Safety and Effectiveness of the IBV® Valve System for the Single-Lobe Treatment of Severe Emphysema   | Spiration, Inc.                                |
| Subproject for Institution # PT109331  | State Council of Higher Education for Virginia |

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| The Surpass IntraCranial Aneurysm Embolization System Pivotal TRial to treat large OR giant wide neck aneurysms (SCENT)   | Stryker Biotech              |
| Master Agreement  | Sunovion                     |
| Protocol for Evaluating the Effects of SEP-363856 on Prime-Induced Reinstatement of Extinguished Lever Pressing Previously Reinforced with Cocaine Infusion in Rats   | Sunovion                     |
| Protocol for Evaluating the Effects of SEP-363856 on Cue-Induced Reinstatement of Extinguished Lever Pressing Previously Reinforced with Cocaine Infusion in Rats   |                              |
| C-Pulse System US IDE Study   | Sunshine Heart Inc.          |
| RA-142: SynCardia Freedom Driver System Study   | SynCardia Systems, Inc.      |
| The SynCardia CardioWest temporary Total Artificial Heart (TAH-t) Postmarket Surveillance Study   | SynCardia Systems, Inc.      |
| A multinational, multicenter, randomized, parallel-group STUDY PERFORMED IN SUBJECTS WITH Relapsing-Remitting Multiple Sclerosis (RRMS) to assess the efficacy, safety and tolerability of Glatiramer Acetate (GA) injection 40 mg administered three times a week, compared to placebo in a double-blind design....(Subproject for Institution # PT103086)...Protocol# MS-GA-301 | Teva Neurosciences, Inc.     |
| A Multicentered Evaluation of Octreotide for Secondary Bleeding Prophylaxis in Patients with LVADs  | Thoratec Corporation         |
| Driveline Silicone Skin Interface (SSI) Registry Protocol   | Thoratec Corporation         |
| Risk Assessment and Comparative Effectiveness of Left Ventricular Assist Device and Medical Management in Ambulatory Heart Failure Patients...Protocol #ROADMAP   | Thoratec Corporation         |
| Safety and Efficacy of Octreotide in Left Ventricular Assist Device (LVAD) Associated Gastrointestinal (GI) Bleeding-CSMS995AUS63T (NOVARTIS providing drug)  | Thoratec Corporation         |
| Subproject for Institution # PT111425   | Thoratec Corporation         |
| TH-CR-406/SARC021 - A Randomized Phase 3, Multicenter, Open-Label Study Comparing TH-302 in Combination with Doxorubicin vs. Doxorubicin Alone in Subjects with Locally Advanced Unresectable or Metastatic Soft Tissue Sarcoma   | Threshold Pharmaceuticals    |
| A Non-Interventional, Long-Term, Post Marketing registry of Patients Treated with CIMZIA for Crohns Disease....Protocol #C87075   | UCB BioSciences,Inc.         |
| Protocol #SP0980 - Open Label Single-Arm, Explorative Study to Evaluate Tolerability and Efficacy of Locosamide When Added to Levetiracetam (VERVE)   | UCB BioSciences,Inc.         |
| The effect of rotigotine on motor symptoms in patients with advanced Parkinson's Disease with motor fluctuations and gastroparesis Phase 3B Study (SP1055 Study)  | UCB BioSciences,Inc.         |
| The Sentinel 1 Study: An Observational, Non-Interventional Study in the United States to Characterize Respiratory Syncytial Virus Hospitalization among infants born at 29 to 35 weeks  | United BioSource Corporation |
| A Phase III, International, Multi-Center, Randomized Double-Blind, Placebo-Controlled, Clinical Worsening Study of UT-15C in Subjects with Pulmonary Arterial Hypertension Receiving Background Oral Monotherapy  | United Therapeutics, Inc.    |
| An Open-Label Extension Study of UT-15C in Subjects with Pulmonary Arterial Hypertension-A Long-Term Follow-Up to Protocol TDE-PH-310.  | United Therapeutics, Inc.    |

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| Master Varian Agreement   | Varian Medical Systems             |
| VMA - P6: Dose Reconstruction for MR-guided Intracavitary Brachy.....Subproject for Institution # PT105301  | Varian Medical Systems             |
| A Phase 2, Multicenter, Double-Blind, Placebo-Controlled, Multiple-Dose Study to Evaluate the Safety, Tolerability, Efficacy, Pharmacokinetics, and Pharmacodynamics of Lumacaftor Monotherapy, and Lumacaftor and Ivacaftor Combination Therapy in Subjects With Cystic Fibrosis, Homozygous or Heterozygous for the F508del-CFTR Mutation - Protocol No. VX09-809-102 | Vertex Pharmaceuticals, Inc        |
| VX11-770-109 - A Phase 3, 2-Arm, Roll-Over Study to Evaluate the Long-term Safety and Pharmacodynamics of Ivacaftor Treatment in Pediatric Subjects With Cystic Fibrosis and a CFTR Gating Mutation   | Vertex Pharmaceuticals, Inc        |
| VX11-950-115 Telaprevir in combination with Peginterferon Alfa-2a and Ribavirin in Subjects coinfectd with Genotype 1 HCV and HIV-1   | Vertex Pharmaceuticals, Inc        |
| VX12-770-112 - A Phase 3, Two-Arm, Rollover Study to Evaluate the Safety of Long-Term Ivacaftpr Treatment in Subjects 6 Years of Age and Older with Cystic Fibrosis and a Non-G551D CFTR Mutation   | Vertex Pharmaceuticals, Inc        |
| VX12-809-105 - A Phase 3, Rollover Study to Evaluate the Safety and Efficacy of Long-term Treatment With Lumacaftor in Combination With Ivacaftor in Subjects Aged 12 Years and Older With Cystic Fibrosis, Homozygous or Heterozygous for the F508del-CFTR Mutation  | Vertex Pharmaceuticals, Inc        |
| Medicaid Patient-Centered Medical Home: Costs, Outcomes, and Challenges   | Virginia Premier Health Plan, Inc. |
| Outcomes AlloMap Registry (OAR) Study   | XDx Incorporated                   |
| Hospital Wearable Defibrillator Inpatient Study   | Zoll                               |