

University of Colorado Platform + Drug Target Pipeline

Available Technologies

| Technology/Target | Indication | IP Type | Inventor | Case # | Biological Discovery | Library/Cell Screens | Target Validation/Animal Models | Lead Optimization | ADMET/Pre-clinical Pharmacology | IND | Phase I |
|---|---|--------------------------|-------------------|-----------|----------------------|----------------------|---------------------------------|-------------------|---------------------------------|-----|---------|
| Novel Virus Vaccine Platform | Influenza | Peptide, mab, or vaccine | Kathryn Holmes | CU1206H | | | | | | | |
| Drosophila Screen for Anti-cancer Agents | Cancer | Drug discovery platform | Tin Tin Su | CU1089B | | | | | | | |
| Targeted Anti-tumor and Antibiotic Drug-Formaldehyde Conjugates | Hodgkin's Disease, breast cancer | Pro-drug platform | Tad Koch | 2002.120B | | | | | | | |
| Autoimmune Therapy | Autoimmunity | Antibody or peptide | V. Michael Holers | CU1432H | | | | | | | |
| ERK1/2 Inhibitor | Cardiac hypertrophy, heart failure | Drug target | Carmen Sucharov | CU1403H | | | | | | | |
| MHC-II Related Protein Inhibitor | Lymphoma | Antibody and target | John Cambier | CU1708H | | | | | | | |
| Calpain Inhibition | Heart failure | Drug target | Clifford Greyson | CU1180H | | | | | | | |
| Opioid Isomer Antagonists | Neuropathic Pain | Drug targets | Linda Watkins | CU1869B | | | | | | | |
| Autoimmune Therapy | Cancer | Antibody or peptide | Brian DeDecker | CU1774B | | | | | | | |
| Noble Metal Based Chemical Library | Autoimmune diseases | Screening library | Brian DeDecker | CU1699B | | | | | | | |
| Synthesis of Mixed Sequence Borane Phosphonate DNA | Therapeutic (antisense drug), diagnostic, aptamer | Drug selection platform | Marvin Caruthers | CU1484B | | | | | | | |
| Human Chromosome Terminal Proteins | Cancer; age-related diseases | Drug target | Thomas Cech | 2001.044B | | | | | | | |
| SUR-5 Gene and Promoter | Cancer | Drug target | Min Han | 7056B | | | | | | | |
| New RAS Suppressor Gene SUR-8 | Cancer | Drug target | Derek Sieburth | 7109B | | | | | | | |
| Monomethyl Branched-Chain Fatty Acids (mmBCFAs) | mmBCFA-linked disease | Drug target | Min Han | CU1262B | | | | | | | |
| Identifying Pathogenic Gene Mutations Related to Enzymatic Diseases | Enzymatic, genetically-inherited diseases | Drug target | Jan Kraus | FD284H | | | | | | | |
| Inhibition of Inflammation by Modulating Xanthine Oxidoreductase Activity | Inflammatory diseases | Drug target | Richard Wright | CU1348H | | | | | | | |
| Structure of Viral Internal Ribosome Entry Site (IRES) RNA | Design of novel antiviral compounds | Drug design tool | Jeffrey Kieft | CU1880H | | | | | | | |
| DNA Sequence Encoding Human Cystathionine B-Synthase | Homocystinuria, Hyperhomocysteinemia | Drug target | Jan Kraus | FD283H | | | | | | | |
| Detecting and Treating Heart Failure | Heart failure | Drug target | J. David Port | IR436H | | | | | | | |
| Screen for Stable and Unstable Anti-TSC Therapeutics | Tuberous Sclerosis Complex (TSC) | Drug selection platform | Tin Tin Su | CU1636B | | | | | | | |

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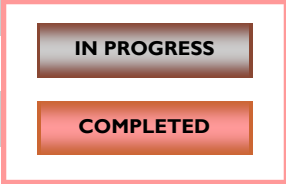
To learn more about the technologies listed here, contact:

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University of Colorado Platform + Drug Target Pipeline

Licensed Technologies

| Technology/ Target | Indication | IP Type | Inventor | Case # | Biological Discovery | Library/Cell Screens | Target Validation/ Animal Models | Lead Optimization | ADMET/ Pre-clinical Pharmacology | IND | Phase I |
|--|--|-------------------------|-----------------|----------|-------------------------|-------------------------|-------------------------------------|----------------------|--|-----|---------|
| SELEX: Systematic Evolution of Ligands by EXponential Enrichment | Various | Drug selection platform | Larry Gold | FD91B | | | | | | | |
| Method for Identifying Adrenergic Receptors | Heart failure | Drug discovery platform | Michael Bristow | 7076H | | | | | | | |
| Riboswitches | Treatment of drug-resistant infections | Drug targets | Robert Batey | Multiple | | | | | | | |
| Regressing Cardiac Hypertrophy with Python as Model Organism | Cardiac hypertrophy | Drug discovery platform | Leslie Leinwand | CU1704B | | | | | | | |
| Multi-Subunit DNA Polymerase from Thermus Thermophilus | Various | Drug target | Charles McHenry | 7027H | | | | | | | |



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University of Colorado Pre-clinical Therapeutic Pipeline

Available Technologies

| Compound | Indication | Composition | Inventor | Case # | Biological Discovery | Library/Cell Screens | Target Validation/ Animal Models | Lead Optimization | ADMET/ Pre-clinical Pharmacology | IND | Phase I |
|--|---|---------------------------------|-------------------|-----------|----------------------|----------------------|-------------------------------------|-------------------|-------------------------------------|-----|---------|
| Growth Factor | Xerostomia | Peptide | Steve Anderson | CUI593H | | | | | | n/a | n/a |
| Alpha-Helix Amps | Nosocomial infections | Peptide | Robert Hodges | CUI323H | | | | | | | |
| Bumetanide (use) | Neonatal seizures | Small molecule | Kevin Staley | CUI383H | | | | | | | |
| Anti-angiogenic Protein | Cancer, vascular proliferation | Protein | Michael Vasil | CUI535H | | | | | | | |
| Bryostatins | Pulmonary hypertension | Small molecule | Edward Dempsey | 9061H | | | | | | | |
| Platelet Extract Healing Factor | Wound healing | Multiple peptides | M. Roedersheimer | CUI635H | | | | | | | |
| Small Molecule Inhibitors for Leukemia | Cancer/leukemia | Small molecule | Lia Gore | CUI916H | | | | | | | |
| Anti-cancer Compounds | Cancer/solid tumors | Small molecule | Heide Ford | CUI748H | | | | | | | |
| Urokinase Plasminogen Activator- frag. | Acute lung injury, sepsis | Recombinant or peptide | Edward Abraham | CUI270H | | | | | | | |
| N-(bis-phosphonatoalkyl)amides | Metastatic bone disease | Small molecule | Gera-Stewart | CUI527H | | | | | | | |
| Diabetes Autoantigen | Type I diabetes | Mimeotope | Hutton-Eisenbarth | CUI673H | | | | | | | |
| Tetrandrine Derivatives | Cancer | Small molecule | Hari Koul | CUI367H | | | | | | | |
| Potential of TKIs | Cancer | Peptide or small molecule | James DeGregori | CUI863H | | | | | | | |
| Autoimmune Therapy | Type I diabetes | Small molecule | G. Eisenbarth | CU2298H | | | | | | | |
| Linoleic Acid (use) | Obesity | Small molecule | G. Sparagna | CUI543B | | | | | | | |
| Ergothioneine | Respiratory diseases | Amino acid | John Repine | CU2204H | | | | | | | |
| Peptide Inhibitor of MEF2 | Cardiac hypertrophy, autoimmune disease | Peptide | Lin Chen | CUI430B | | | | | | | |
| Neuro-protective Peptide | Stroke, other neural injury | Peptide | K. Ulrich Bayer | CUI933H | | | | | | | |
| Molecular Sealant | Muscular dystrophy | Poloxamer | Brain Tseng | CUI653H | | | | | | | |
| Myoblast Activator | Heart disease, muscular dystrophy | Peptide | Gary Brodsky | CUI052H | | | | | | | |
| Cystathionine Beta Synthase | End-stage renal disease | Recombinant | Jan Kraus | 2002.110H | | | | | | | |
| Anti-cancer Peptide | Cancer/solid tumors | Peptide | Margaret Neville | CUI693H | | | | | | | |
| Doxazolidine and Derivatives | Cancer | Targeted small molecule | Tad Koch | CUI435B | | | | | | | |
| MHC-II-related Protein Inhibitor | Lymphoma | Antibody and target | John Cambier | CUI708H | | | | | | | |
| Sugar-free Fibroblast Growth Factor | Wound healing, pro-angiogenesis | Recombinant | Bradley Olwin | 8046B | | | | | | | |
| Selective HDAC Inhibitors | Cancer | Small molecule | Lia Gore | CUI946H | | | | | | | |
| Autoimmune Therapy | Cancer | Antibody or peptide | Brian DeDecker | CUI774B | | | | | | | |
| Autoimmune Therapy | Autoimmunity | Antibody or peptide | V. Michael Holers | CUI432H | | | | | | | |
| Insulin-like Growth Related Peptide | Type I diabetes | Mimeotope | John Hutton | CUI109H | | | | | | | |
| Anti-cancer Nucleic Acid | Cancer | MicroRNA | Heide Ford | CU2364H | | | | | | | |
| Doxsaliform | Cancer | Targeted small molecule/prodrug | Tad Koch | 2002.120B | | | | | | | |

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University of Colorado Pre-clinical Therapeutic Pipeline

Licensed Technologies

| Compound | Indication | Composition | Inventor | Case # | Biological Discovery | Library/Cell Screens | Target Validation/ Animal Models | Lead Optimization | ADMET/ Pre-clinical Pharmacology | IND | Phase I |
|---|--|-------------------------------|------------------|----------|----------------------|----------------------|-------------------------------------|-------------------|-------------------------------------|-----|---------|
| DES-ARG9-BK Antagonists | Asthma, pulmonary inflammation | Peptides | Lajos Gera | IR472H | | | | | | | |
| Alpha-Helical Antimicrobial Peptides | Nosocomial infections | Peptide | Robert Hodges | CUI323H | | | | | | | |
| Bucillamine (use) | Ischemic disease, reperfusion injury | Small molecule | Lawrence Horwitz | 6028H | | | | | | | |
| Cytolytic Bradykinin Antagonists | Non-small cell lung cancer | Peptides | John Stewart | IR470H | | | | | | | |
| Beta-1 Adrenergic Receptor Polymorphisms | Heart failure | Small molecule (use) | Michael Bristow | CUI298H | | | | | | | |
| Treatment of Mycobacterial Infections | Bacterial infections | Compound | Leland Shapiro | CUI085H | | | | | | | |
| CE-2073 as an Antiretroviral Agent | HIV | Compound | Leland Shapiro | 9014H | | | | | | | |
| Heat-inactivated Alpha-1-antitrypsin | Antiviral treatment | Compound | Leland Shapiro | CUI697H | | | | | | | |
| Stabilized Formulations of CNS Treatments | Epilepsy, schizophrenia, bipolar disorder, anxiety | Small molecule (formulation) | Daniel Abrams | CUI374H | | | | | | | |
| Multiple Disease Therapeutic | HIV, HCV, HPV, cancer, autoimmunity | Peptide or small molecule | M. Karen Newell | CUI760C | | | | | | | |
| CLIP Inhibitors | Autoimmunity, immune | Peptides/methods | M. Karen Newell | CUI969C | | | | | | | |
| Ibudilast (use) | Opioid dependency/withdrawal | Small molecules/nucleic acids | Linda Watkins | CUI787B | | | | | | | |
| Bucindolol (targeting) | Heart failure | Small molecule (use) | Michael Bristow | CUI297H | | | | | | | |
| NQO1 Inhibitors (7 leads) | Cancer | Small molecule | David Ross | CUI234H | | | | | | | |
| HSP-90 Inhibitors | Cancer | Small molecule | Ross-Siegel | CUI382H | | | | | | | |
| Micro-RNA Therapy | Cardiovascular diseases | Small molecules, miRNAs | David Port | CUI772H | | | | | | | |
| Platelet Extract Healing Factor | Wound healing (dental applications) | Multiple peptides | M. Roedersheimer | CUI635H | | | | | | | |
| Mer Antibody | Leukemia, astrocytoma, NSCLC | Antibody | Doug Graham | CUI258H | | | | | | | |
| TAIF Blockade or Activation (IL-32) | Autoimmune disease, cancer | Peptide | Soo-Hyun Kim | CUI157H | | | | | | | |
| Mutant IL-10 | Neuropathic pain, neurologic disorders | Peptide | Linda Watkins | CUI639B | | | | | | | |
| Broad Spectrum Antimicrobial Peptides | Nosocomial infections | Peptide | Robert Hodges | CU2063H | | | | | | | |
| Soluble Mer (Fc-Mer)* | Leukemia, stroke, DVT, cardiac thrombosis | Recombinant | Doug Graham | CUI267H | | | | | | | |
| Inhibitor of Fatty Acid Oxidation | Potentiation of drug sensitivity in breast cancer | Small molecules, miRNAs | M. Karen Newell | CUI968C | | | | | | | |
| Treatment of Myocardial Failure | Heart failure | Method | Michael Bristow | Multiple | | | | | | | |

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University of Colorado Stem Cell + Vaccine Technologies

| Technology | Indication | Inventor | Case # | Biological Discovery | Library/Cell Screens | Target Validation/ Animal Models | Lead Optimization | ADMET/ Pre-clinical Pharmacology | IND | Phase I | |
|--|---|-----------------------|-----------|----------------------|----------------------|----------------------------------|-------------------|----------------------------------|-----|---------|--|
| AVAILABLE — REGENERATIVE MEDICINE | | | | | | | | | | | |
| Methods and Reagents to Grow and Repair Heart Muscle | Heart improvement, human lifespan extension | Gary Brodsky | CU1596H | | | | | | | | |
| Transplantation of Immortalized Human Dopamine Cells | Parkinson's Disease | Jan Kraus | 7060H | | | | | | | | |
| Skeletal Muscle Regeneration | Muscle repair, muscular dystrophy, urinary incontinence | Bradley Olwin | CU1687B | | | | | | | | |
| Novel Bone Marrow Derived Cells | Ischemic lung damage | Vivek Balasubramanian | CU1883H | | | | | | | | |
| Directing Stem Cell Differentiation by Manipulating SOX activity | Stem cell development platform | Michael Klymkowsky | CU1355B | | | | | | | | |
| Bone Marrow Derived Mesenchymal Stem Cells as a Cell Based Therapy | Pulmonary epithelial dysfunction and disease | Susan Majka | CU1504H | | | | | | | | |
| AVAILABLE — VACCINE TECHNOLOGIES | | | | | | | | | | | |
| Biomanufacturing Processes for GST Fused HPV Vaccines | HPV vaccination | Robert Garcea | CU1729H | | | | | | | | |
| Disassembly of Papillomaviruses | HPV vaccination | Robert Garcea | 7100H | | | | | | | | |
| Mutant Forms of Cholera Holotoxin | Vaccine adjuvant | Randall Holmes | CU1204H | | | | | | | | |
| Enveloped Virus Vaccine | Influenza (all strains), SARS, coronaviruses | Kathryn Holmes | CU1206H | | | | | | | | |
| Type I Diabetes Vaccine | Preventive and therapeutic vaccine for type I diabetes | Eisenbarth-Kappler | CU2295H | | | | | | | | |
| Protein Platform For Utilitarian Vaccine Development | Vaccine development platform | Robert Garcea | 2002.095H | | | | | | | | |
| Immunologically-Active Adjuvant-Bound Dried Vaccine Preparation | Vaccine preparation method | Theodore Randolph | CU1660B | | | | | | | | |
| LICENSED TECHNOLOGIES | | | | | | | | | | | |
| Immortalized Long-term Hematopoietic Stem Cells | Cancer treatment, immune deficiencies | John Cambier | CU1493H | | | | | | | | |
| Recombinant Type-I Interferon Synergizes with CD40 Agonist | Vaccine adjuvant | Ross Kedl | CU1530H | | | | | | | | |

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