The Drug Development Institute (DDI) is a biotech-like institute embedded within The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (OSUCCC – James) that employs a combination of targeted investments, strategic management and cutting-edge resources to drive projects from discovery through early-stage drug development, thus creating high-value new drug candidates.

The DDI Advantage: For Industry Partners

- The depth and breadth of a highly collaborative, NCI-designated comprehensive cancer center, clinical trial expertise (all phases) and the third-largest cancer hospital in the country
- An extraordinary opportunity to identify novel technologies from the latest scientific discoveries made in research laboratories
- Expertise with U.S. and international intellectual property rights filings
- Earlier access to innovative preclinical drug candidates that can be expedited to IND readiness
- An extensive network of subject-matter experts to maximize commercial value
- Flexible agreement models

The DDI Advantage: For Researcher Partners

- Helps identify pharmaceutical/biotech collaborators and resources by cultivating relationships
- Provides a systematic approach to managing the drug development process through timeline and milestone management
- Offers strategic advisory capabilities led by industry-experienced scientists who have extensive knowledge of early-stage drug development and access to investment resources to enhance commercial value
- Helps researchers navigate the complex pharmaceutical drug development process
- Brings an industry-focused perspective to all investment and management decisions
- De-risks projects, thus enhancing the likelihood of partnership and progression to clinical development

Learn more at cancer.osu.edu/DDI

Contact the DDI
Email: DDI@osumc.edu
Phone: 614-685-6957
Pipeline

The DDI works with world-renowned investigators who perform cutting-edge research in multidisciplinary teams. Highlights of current projects in our pipeline:

**Activated B Cells as a Cancer Vaccine**
Investigators: Thomas L. Cherpes, MD, DVM; Rodolfo Vicetti Miguel, MD; and Nirk Quispe Calla, MD
A novel B cell-based cancer vaccine, with the potential to be personalized to an individual’s own tumor signature, is being developed for use in the treatment of a wide variety of cancer types.

**DLL1 T Cell Immune Therapy to Fight Cancer (First-in-Class)**
Investigators: Mikhail Dikov, PhD; Thomas Magliery, PhD; Ming Poi, PharmD, PhD; and David Carbone, MD, PhD
This team of researchers has developed a new class of molecules that modulate a signaling pathway in immune cells to reprogram the immune system to recognize and fight evasive cancer tumor cells.

**Selective RAL A GTPase Inhibitors as a Cancer Treatment**
Investigators: Steven Sizemore, PhD, and Steffen Lindert, PhD
The Ral A protein has been shown to be a critical node in the signaling pathways allowing growth of several types of cancer. This team is developing first-in-class, selective inhibitors of Ral A.

**Estrogen Receptor Beta (ER-β) Agonist as a New Approach to Targeting a Cancer Driver**
Investigator: Werner Tjarks, Dr.rer.nat.
A novel series of selective estrogen receptor beta agonists is in development for the treatment of cancer as well as the precancerous condition, nonalcoholic steatohepatitis (NASH).

**An Anti-EGFL7 Antibody for Acute Myeloid Leukemia (AML)**
Investigators: Adrienne Dorrance, PhD, and Ramiro Garzon, MD
The secreted protein EGFL7 has been found to be a driver for AML blast proliferation. This team has identified that EGFL7 blocking antibodies can significantly reduce disease burden.

**Mps1 Inhibitor as a Treatment for Solid Tumors**
Investigators: Harold Fisk, PhD, in collaboration with Robert Brueggemeier, PhD; Tom Li, PhD; and Michael Darby, PhD
Mps1 is a protein that regulates cell division, and its overexpression is associated with poor outcomes in triple-negative breast cancer and other solid tumors. This team is developing selective inhibitors of Mps1.

**PP2A Activator for Treatment of AML and Other Hematologic Malignancies**
Investigators: Raj Muthusamy, DVM, PhD; William Kisseberth, DVM, PhD; Mitch Phelps, PhD; and John C. Byrd, MD
Protein phosphatase 2A (PP2A) is an important tumor suppressor that is frequently inactivated in acute myeloid leukemia (AML) and other hematologic malignancies. This team has developed a selective activator of PP2A to address the significant unmet need in AML.

**AHR Hydrocarbon Receptor as a Target for Myeloma**
Investigator: Don Benson, MD, PhD
The aryl hydrocarbon receptor (AHR) has been implicated as a sensor of environmental chemicals as well as a critical regulator of B-cell development. This team is evaluating small molecule inhibitors of AHR to address the significant unmet need in myeloma.

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