

Hesperos and GalenusRx Awarded NIH Phase IIB Grant to Help Prevent Drug-Induced Dementia

Collaboration between Hesperos and GalenusRx aims to improve prescribing safety by reducing the risk of drug-induced cognitive decline, particularly for older patients who are at risk for Alzheimer's disease and other dementias.

ORLANDO, FLORIDA, 17 October 2025: Hesperos, Inc., a global leader focused on improving preclinical drug development, food, cosmetic, and chemical testing with its Human-on-a-Chip® (HoaC) single- and multi-organ systems platform, has been awarded a Phase IIB SBIR grant (R44AG071386) from the National Institute on Aging (NIA).

In partnership with GalenusRx, Hesperos will use its HoaC, multi-organ systems, to study how combinations of anticholinergic (and other types of) medications contribute to cognitive impairment, including drug-induced dementia in older adults. Data generated from Hesperos' multi-organ systems will contribute to enhancing GalenusRx' APPRAISE® (Actionable PolyPharmacy Risk Assessment Index for Safety and Efficacy) platform, a clinician-friendly tool designed to guide better informed and safer prescribing decisions.

Often, different physicians are involved in the management of a patient who is dealing with multiple health conditions, for example: asthma, diabetes, hypertension and overactive bladder. Unfortunately, while each medication or treatment regimen may be appropriate on its own, because of a lack of awareness, the combination of different drug regimens may increase the risk of adverse multi-drug interactions.

Of particular concern is the additive burden of anticholinergic agents. Anticholinergic burden has been linked to onset of cognitive decline and is particularly dangerous for patients that already may be at increased risk for Alzheimer's disease, and other dementias.

"Understanding how combinations of drugs affect the brain is critical to improving safety for aging populations," said James J. Hickman, PhD, Co-founder and Chief Scientist at Hesperos. "By recreating these interactions in a human-relevant system, we can generate data that reveal how specific drug combinations impact brain function, helping drive better clinical decisions and improving healthcare overall."

Building on successful Phase II results, this Phase IIB grant will use a HoaC multi-organ system comprised of cortical neurons, along with blood-brain barrier and liver organ constructs to measure long-term potentiation (a functional readout of a key marker associated with learning and memory) in addition to other safety and efficacy parameters. Following administration of various multi-drug anticholinergic containing treatment regimens, their impact on cognitive function will be assessed.

GalenusRx' APPRAISE platform uses proprietary algorithms to quantitatively score the risk of adverse drug events (ADEs) by assessing various risk factors. The results of this Phase IIB study will improve their proprietary APPRAISE risk assessment strategy, to better identify when a change in treatment could increase risk of cognitive decline and thereby reduce the severity and frequency of ADEs. By implementing a better management of these patients, GalenusRx advanced clinical pharmacists could avoid or reduce hospitalizations, and decrease medical costs by enabling informed, evidence-based, prescribing decisions for older adults with complex medication regimens.

"By combining Hesperos' functional human data with our APPRAISE algorithms, we can translate complex pharmacology into practical answers for clinicians," said Jacques Turgeon, BPharm, PhD, CEO of GalenusRx.

Project Highlights & Outcomes

- **Clinically relevant data:** Hesperos' HoaC organ model can replicate cognitive deficits observed in patients associated with anticholinergic agents.
- **Reduced healthcare costs:** GalenusRx' APPRAISE platform can support better informed medication prescribing regimens that will improve patient care by decreasing the likelihood of triggering ADEs that lead to emergency department visits, and hospitalizations.

About Hesperos

Hesperos is a global contract research organization (CRO) specializing in preclinical drug development services utilizing its Human-on-a-Chip® platform. By replicating key aspects of human biology (and thus avoiding expensive, time-consuming, and often less informative animal testing), Human-on-a-Chip® organ-system models provide product development teams with more meaningful insights that can accurately predict an agent's

therapeutic profile while lowering costs and accelerating development timelines. For more information, visit www.hesperosinc.com.

About GalenusRx

Founded in 2023 by a team of internationally recognized healthcare leaders, GalenusRx is revolutionizing medication safety with precision. The company's proprietary platform, APPRAISE, analyzes drug-drug, multi-drug, drug-gene, and drug-disease interactions to provide a unique and comprehensive risk assessment, including unique pharmacogenomic analyses while considering phenoconversion. Through the Lifesaving Insights consulting service, Precision Clinical Pharmacists deliver tailored recommendations for safer, more effective drug regimens. Together, these solutions directly address polypharmacy and the potential for predictable adverse drug events, the third leading cause of death in the U.S. and around the world. GalenusRx is leading the way to better health outcomes and lower total medical costs. Learn more at <https://galenusrx.com>.