

OniX: AI in Biomedical Data: Preclinical and Clinical Landscape Analysis of Rare and Common Diseases

OniX is actively expanding its scope, building landscape analyses across various disease areas, including:

- Dermatology
- Ophthalmology
- Oncology
- Neuroscience
- Cardiovascular diseases
- Autoimmune diseases
- Allergies
- Microbiome research
- Metabolic disorders
- Lysosomal storage
   diseases

Furthermore, OniX is constantly incorporating analysis of emerging technologies, such as:

- Nanotechnology
- Gene therapy
- Antisense
   oligonucleotides
- mRNA therapeutics
- Monoclonal antibodies
- CRISPR gene editing

Contact us to learn more or request a demonstration of this unmatched industry resource. <u>martin@onixhub.com</u>

### OniX: AI in Biomedical Data

### Preclinical and Clinical Landscape Analysis of Rare Skin Diseases

OniX is a comprehensive research knowledge hub designed to support and accelerate breakthroughs in drug discovery and scientific progress. Through the application of AI tools, OniX facilitates data analysis and also enables dynamic questioning, leading to the identification of novel ideas, researchers, and technologies aligned with partners' areas of interest. This holistic approach ensures a comprehensive understanding of the biomedical landscape, empowering informed decision-making for advancements in healthcare and research.

OniX understands the critical role of up-to-date information in driving successful research and development (R&D) strategies, investment decisions, and potential partnerships. To address this need, it gathers a vast amount of global research data, including:

- Funded and unfunded grants from various sources (government, private foundations)
- Technology transfer projects
- Intramural research projects from universities
- Publications
- Patents
- Clinical trials
- Pipelines for assets and products from biotechnology companies

While the sheer volume of data can be overwhelming, AI tools empower OniX to effectively analyze and interpret this information, transforming it into actionable insights. This allows users to:

- Understand the preclinical and clinical landscape of various diseases and specific targets of interest.
- Identify new and innovative ideas, researchers, and technologies that align with their specific areas of focus.
- Ask questions and receive clear and specific answers from the vast research data, enabling them to make informed decisions.

### Example: Exploring Rare Skin Diseases

OniX demonstrates its capabilities by providing a preclinical and clinical landscape analysis of two rare skin diseases: Blau Syndrome and Hidradenitis suppurativa. This analysis goes beyond simply identifying the landscape; it unveils potential new and innovative research projects with the potential to impact R&D strategies. Additionally, the analysis incorporates details like administration route and mode of action for each potential drug being studied.



# "Accelerating Impactful Research Ideas To Market."

PARTNERING | FUNDING | INNOVATION | KNOWLEDGE



## Blau Syndrome Preclinical Landscape - DRAFT

Organization Name	Contact PI / Project Leader	Project Title	OniX Summary			
OREGON HEALTH & SCIENCE UNIVERSITY	ROSENZWEIG, HOLLY LALLMAN	NOD2 and Uveitis	This research project investigates the mechanisms of uveitis, an eye inflammation, focusing on the NOD2 gene. Mutations in NOD2 cause Blau syndrome, a disease with uveitis as a symptom. The researchers will use a model to study how NOD2 activation, either directly or through other immune pathways, can trigger uveitis. This research could improve understanding of uveitis and potentially lead to new treatments.			
OREGON HEALTH & SCIENCE UNIVERSITY	ROSENZWEIG, HOLLY LALLMAN	Back to Basics: T Cellular Control of Nod2 in Uveitis	This research focuses on Nod2, a gene linked to Blau syndrome, which causes non-infectious uveitis (eye inflammation). While Nod2 was previously thought to contribute to uveitis, this study suggests it may actually protect against it by regulating specific immune cells. Understanding this role of Nod2 in regulating T cell responses could lead to new treatments for uveitis and other vision problems.			
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	STROBER, WARREN	Immunoregulatory Defects In Inflammatory Bowel Disease	<ul> <li>Project I: Blau Syndrome</li> <li>Relation to Blau Syndrome: This project investigates how mutations in the NOD2 gene, specifically those found in Blau Syndrome, affect its function. They show that these mutations impair NOD2's ability to regulate inflammatory responses, potentially contributing to the disease's symptoms.</li> <li>Drug Development Potential: The project identifies the specific way Blau Syndrome mutations affect NOD2, which could be a target for future drug development aimed at restoring its normal function. However, the text doesn't explicitly mention ongoing drug development efforts.</li> <li>Project II: Atg16L1 T300A Polymorphism and Crohn's Disease</li> <li>Relation to Crohn's Disease: This project explores how a specific genetic variation (Atg16L1 T300A) linked to Crohn's Disease disrupts a cellular process called autophagy, potentially leading to increased inflammation.</li> <li>Drug Development Potential: While the project sheds light on the mechanism behind the Atg16L1 variation, it doesn't directly point to new drug development opportunities. It suggests an alternative explanation for the disease's cause compared to the existing theory, which might influence future research directions.</li> </ul>			



#### Hidradenitis Suppurativa (P1-2) Clinical Landscape - DRAFT Phases NCT Number Conditions Interventions Route MoA

Phases	NCT Number	Conditions	Interventions	Route	МоА	Sponsor	Collaborators
Phase 1	NCT04989517	Hidradenitis Suppurativa	DRUG: AT193	Oral	decreased T-helper 17 activity and increased T-regulatory cell differentiation, regulation of inflammatory cytokines, and increased barrier function	Azora Therapeutics Australia Pty Ltd	
Phase 1	NCT06082323	Hidradenitis Suppurativa   Atopi c Dermatitis   Health y Volunteer	DRUG: LT-002- 158/Placebo oral tablet(s)	Oral tablet	ТВА	Shanghai Leadingtac Pharmaceutical Co., Ltd.	
Phase 1/2	NCT05934825	Hidradenitis Suppurativa	BIOLOGICAL: Injectable suspension of allogeneic adult mesenchymal stem cells OTHER: Placebo	intrale sional	allogeneic adult mesenchymal stem cells from adipose tissue	Andalusian Network for Design and Translation of Advanced Therapies	
Phase 2	NCT05139602	Hidradenitis Suppurativa	BIOLOGICAL: Lutikizumab DRUG: Placebo	SC	dual-variable-domain interleukin (IL) 1α/1β antagonist	AbbVie	
					Second Virtual		