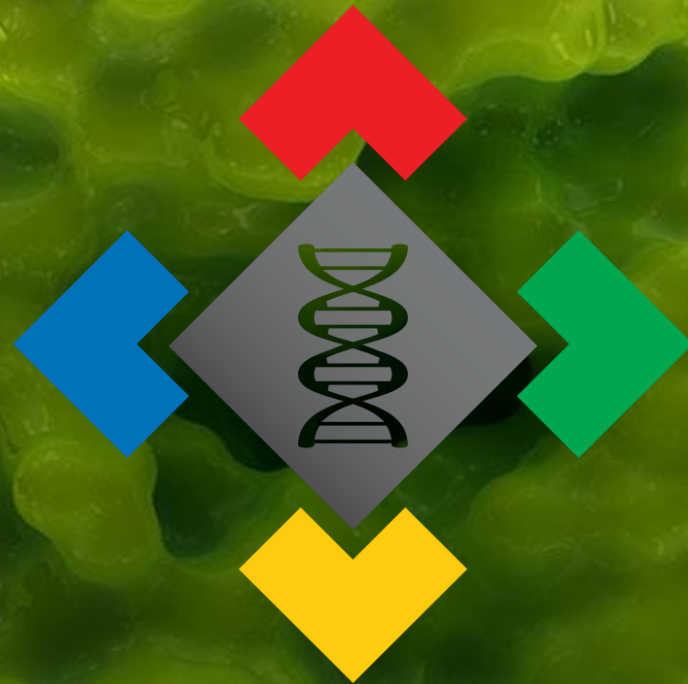




Micar Innovation



Drug Discovery Factory  
for novel drug molecules

# Problem



There are so many **incurable diseases** around the world that **need adequate novel compounds** for the treatment, like:

- **Chronic pain** still a **pandemic** in the **21<sup>st</sup> century** and affecting **1.5bn** people worldwide
- There are, **7 000** know **Rare & Ultra Rare Diseases** affects as many as **350** million people in worldwide, **50-66%** of which affect **children**.
- **No time to waste:** Collaborative efforts in disease drug discovery

**Direct economic healthcare costs** for treating diseases worldwide are about **\$ 5 000 billion**

# Solution

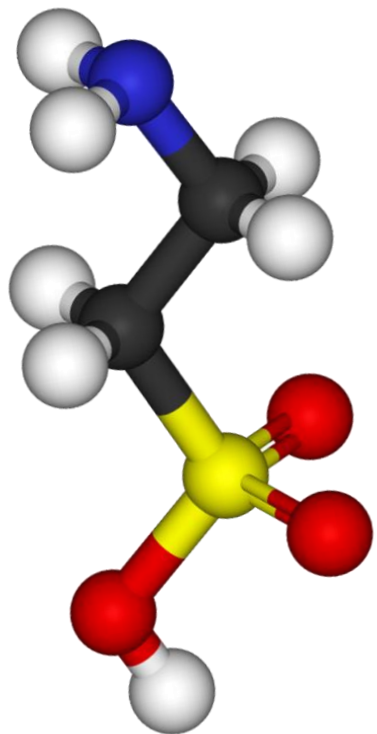


**Micar Innovation**  
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## *Novel drug molecule is the KEY*

Drug Discovery Factory **created & provided:**

- **Drug molecules for treatments** of diversity pandemic, Rare & Ultra Rare, diseases with **unprecedented speed, accuracy and diversity Drug Discovery**
- **Indirect Reduce** direct economic healthcare costs
- **Positive** social and economic impact



## **Make people smile & healthy**

# Product proof in Pipeline



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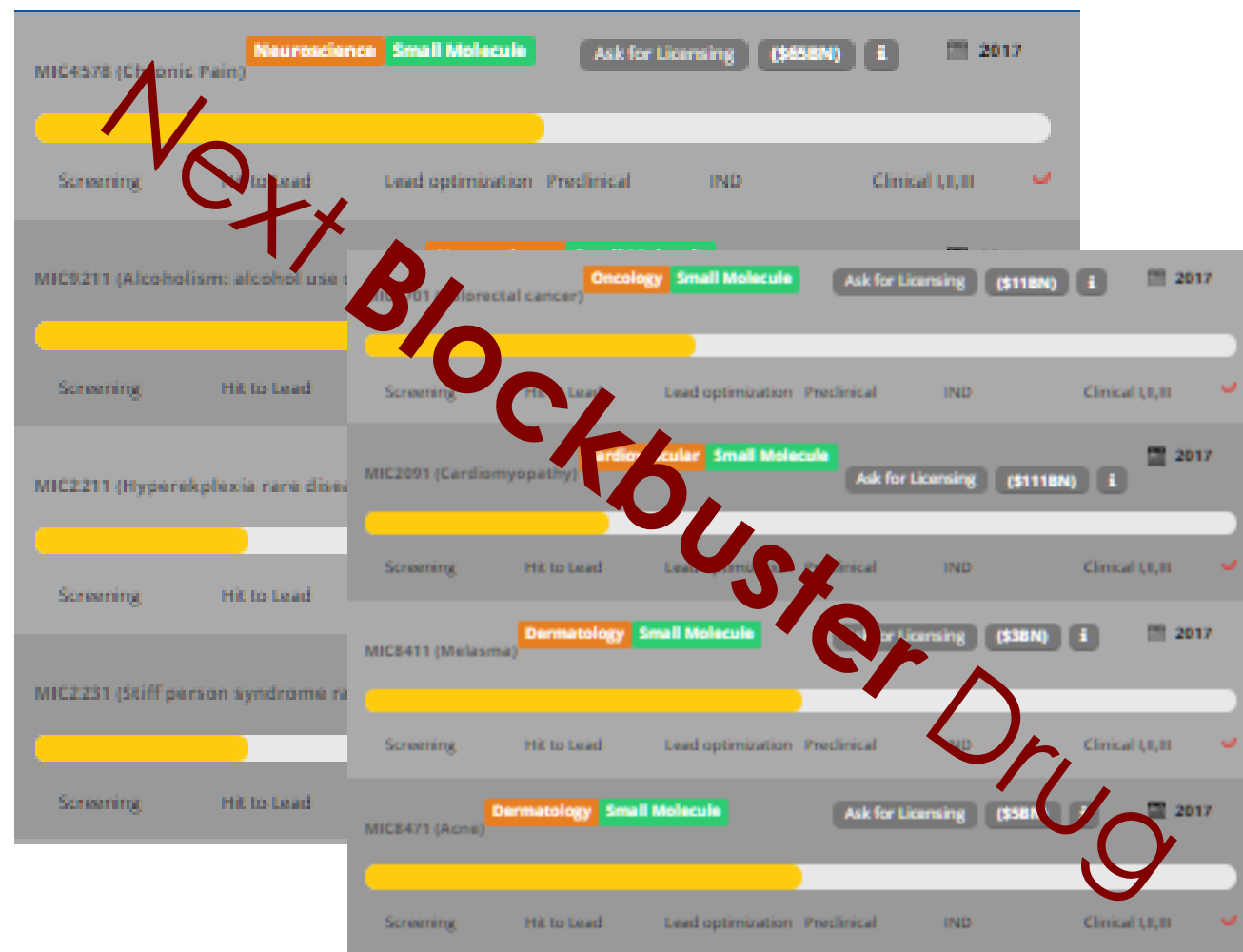
novel drug molecule is the KEY

Discover our Drug Discovery Research  
results for last 1 year:

MIC4578 **Chronic Pain** (Preclinical)  
MIC9211 **Alcoholism: AUD** (Lead optimization)  
MIC2211 **Hyperekplexia rare disease** (Hit to Lead)  
MIC2231 **Stiff PS rare disease** (Hit to Lead)  
MIC2634 **Iminoglycinuria rare disease** (Hit to Lead)  
MIC6479 **Pancreatic Cancer** (Preclinical)  
MIC6701 **Colorectal cancer** (Lead optimization)  
MIC2091 **Cardiomyopathy** (Hit to Lead)  
MIC8411 **Melasma(Hyperpigmentation)** (Preclinical)  
MIC8471 **Acne** (Preclinical)

## Therapeutic areas

Neuroscience // Oncology // Cardiovascular //  
Dermatology // Rare & Ultra Rare diseases



# The platform Micar21



**Micar Innovation**  
Drug Discovery Factory  
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**The platform Micar21** – Micar Innovation drug discovery platform which enables efficient discovery of novel small molecule drug candidates.

**The platform Micar21** provides access to screening of billions of molecules and efficient optimization of drug properties in the process of identifying the drug candidate.

## The platform Micar21 - *structure based in silico drug design & AI*

### **Generation of highly quality structures**

*We find the target protein (gene) which is involved in certain disease (usually membrane proteins) and then design highly quality structure*

### **New hit compounds discovery by state of art approaches (more than 70% success rate) + Lead**

*Screening **800 million** molecules  
(we look the protein key and refine searching)*

### **Lead optimization of the discovered hits by FEP+ method & computer guided ADMET**

***7-10** small highly potent and selective molecules with all predicted ADMET*

**Novel drug candidate (small molecule) is ready to go next Preclinical phase with ADMET - refined structure, absorptions, membranes, toxicology, etc and validated Non Clinical Proof Of Concept.**

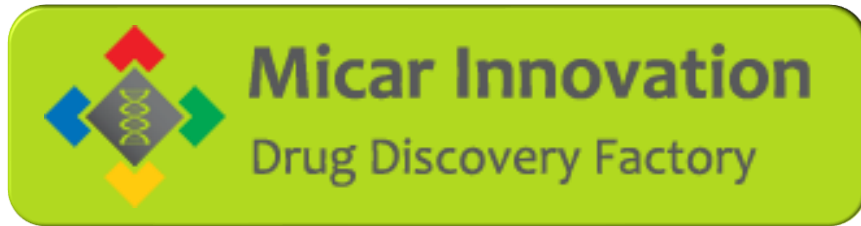
*usually **1-2** small molecules*



# Our main expertise



Discovering novel small molecule and the demonstration of **true non-clinical proof-of-concept** is a key value-creation step in the clinical development of a medicine.



Micar Innovation seeks to develop product candidates that:

- Address currently unmet medical needs
- Suggest a clear-cut development profile
- Provide an opportunity to be first-in-class or best-in-class

## Drug Discovery

## Pre-Clinical

## IND Enabling

## Phase 1

## Phase 2

## Phase 3

## Approval

## Marketing

← 0.5 – 1 years →

- Generation of highly quality structures
- Target Validation
- Hit to Lead
- Lead Optimization
- Computed aided ADMET - refined structure, absorptions, membranes, toxicology, etc

- Non-Clinical Proof of Concept
- PK/PD
- Pilot Tox

GPL Tox  
Pharmacology  
CMC

Phase 1  
SAD/MAD

Phase 2  
Clinical PoC



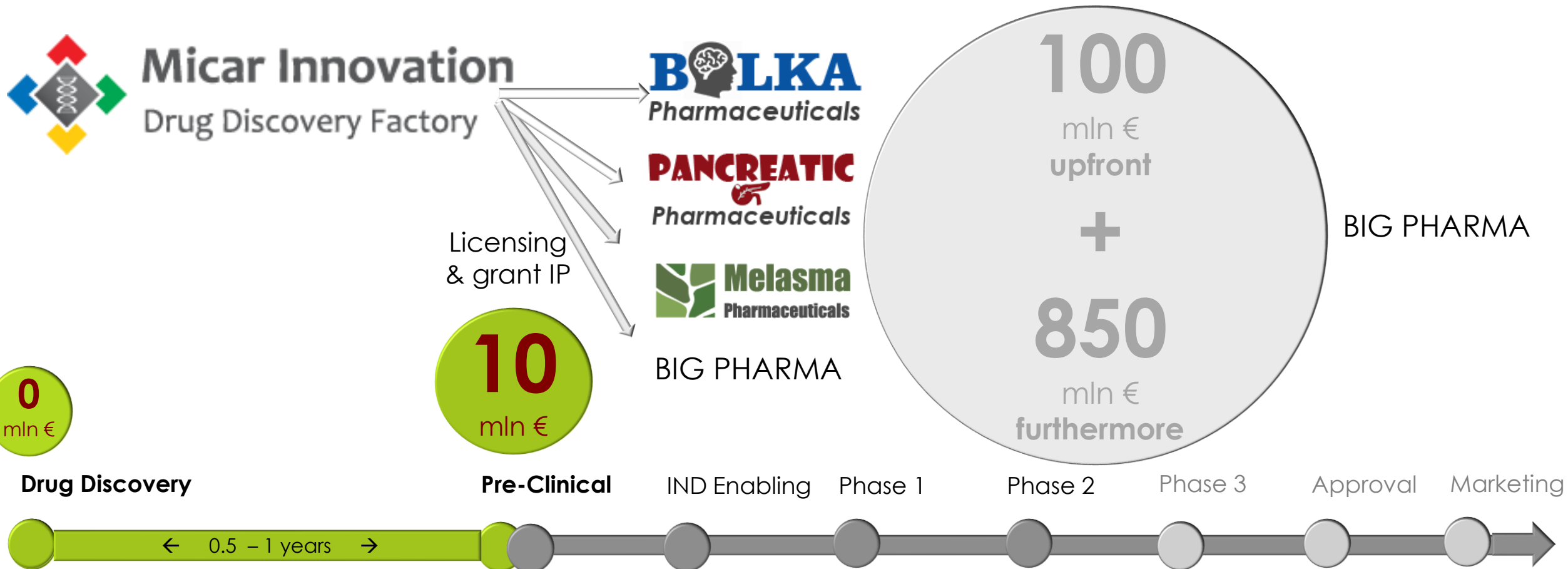
Micar Innovation is actively developing promising first-in-class or best-in-class therapies to treat rare genetic diseases, which mostly affect children. The company has a growing product pipeline, with multiple preclinical candidates in development.

IND (Investigation New Drug application)

# Business Model



Business model based on discovering and developing novel drug candidate until **Preclinical phase** – with strong science data of Non-Clinical “Proof of concept” (PoC) and **licensing** them to the best possible commercial partner or new spin out companies.



# Spin out companies



**Micar Innovation**  
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novel drug  
molecule for the  
treatment of

**Chronic Pain**



novel drug  
molecule for the  
treatment of

**Pancreatic  
Cancer**



novel drug  
molecule for the  
treatment of

**Melasma**



# Intellectual property



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for novel drug molecules

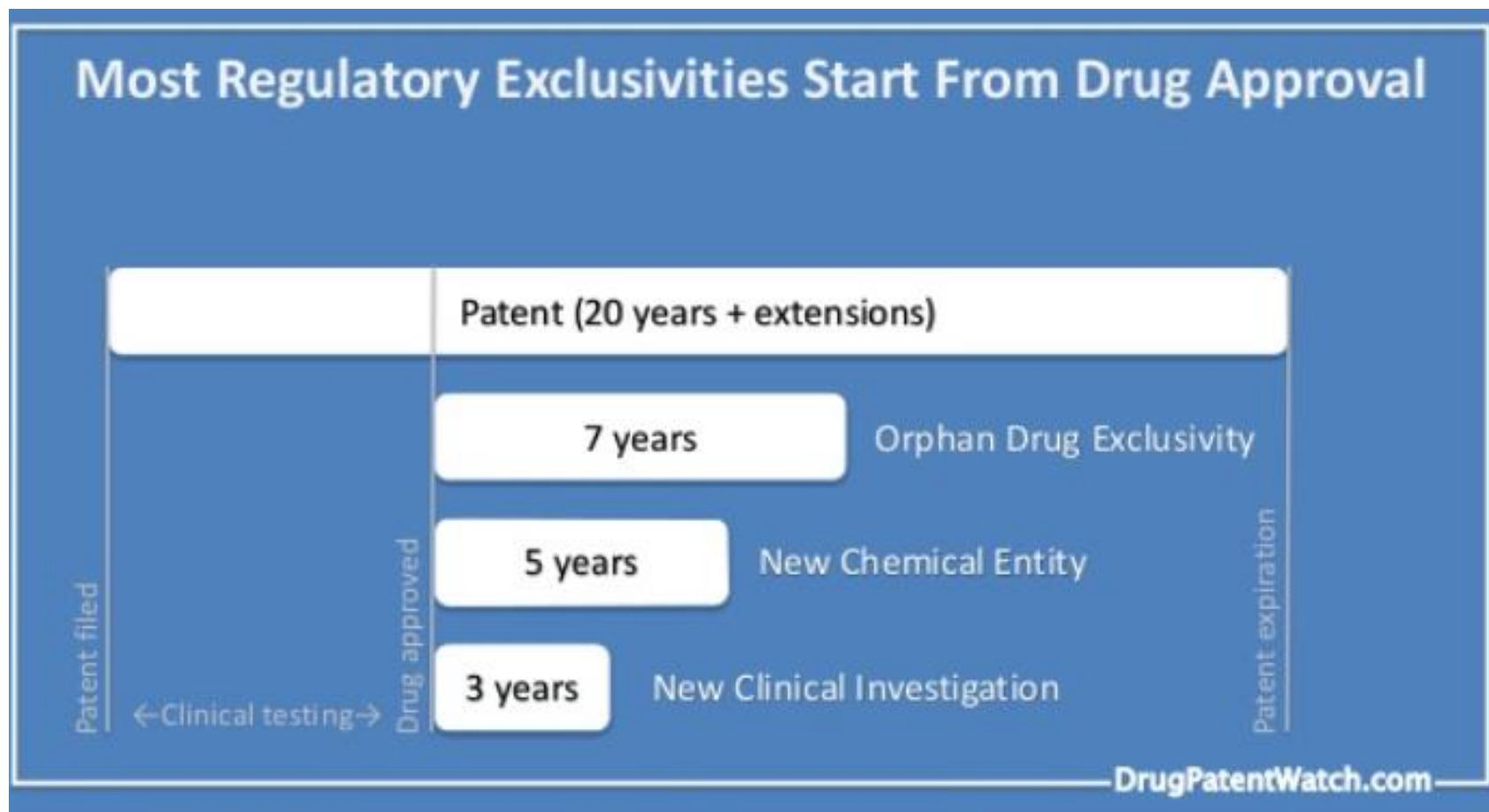


## Patent family

Small Molecule for the treatment of

Priority date

Publication number



*small molecule is the key*

# Publications



**Micar Innovation**  
Drug Discovery Factory  
for novel drug molecules

Publications are only in highly visible prominent international scientific journals

**J | A | C | S**  
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

**PCCP**  
Physical Chemistry Chemical Physics

**molecular  
pharmaceutics**

**ACS**  
Chemistry for Life

**BMC**  
Structural Biology

**PROTEINS**  
STRUCTURE ■ FUNCTION ■ BIOINFORMATICS

JOURNAL OF  
**CHEMICAL INFORMATION  
AND MODELING**

International Journal of  
**Molecular Sciences**

**ASBMB**  
American Society for Biochemistry and Molecular Biology

Micar Innovation (Micar21) listed as a  
**Emerging Players in study on 'Computer  
Aided Drug Discovery Services Market,  
2018-2030 - Roots Analysis**

Source:

[https://www.rootsanalysis.com/reports/view\\_document/computer-aided-drug-discovery-services-market-2018-2030/207.html](https://www.rootsanalysis.com/reports/view_document/computer-aided-drug-discovery-services-market-2018-2030/207.html)

1. Aaranya Biosciences

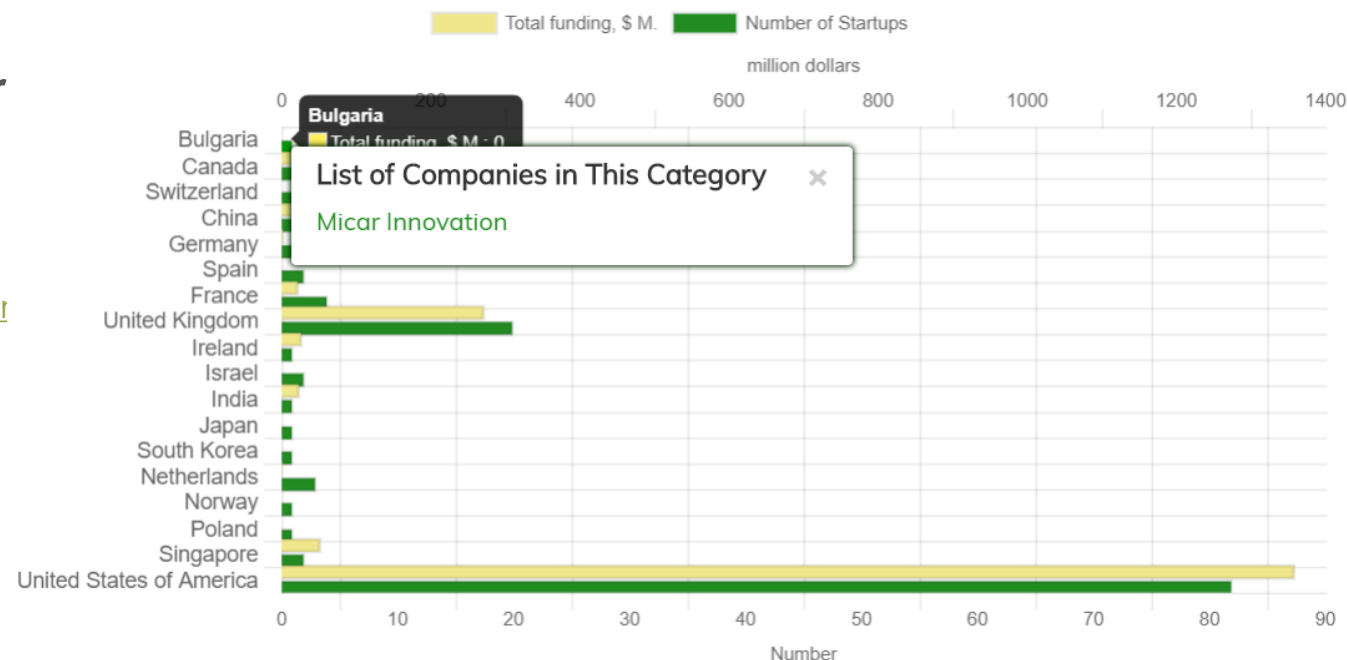
...

146. **Merck**

147. **Micar Innovation**

...

253. Zorilla Research



AI-startups and VC-funding Distribution By Geography

# Awards and nominations



**Micar Innovation**  
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**CIDIC** (cidic.be) is the **European Centre of Economic Diplomacy** and addresses the Diplomatic, Economic, Academic and Cultural world is pleased to inform you that **Micar Innovation (Micar21) has been awarded a “European CIDIC Award”**.



**Best Biotech Startup** of the year 2017 in CEE

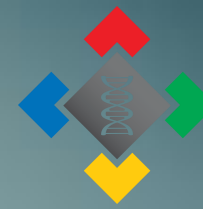


Startup World Cup & Summit

- Regional Finals
- **TOP 8 Biotech Award**
- TOP 50 of the 2018 Startup
- World Cup & Summit
- Regional Finals!



# Thank you for your attention!



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**Progress** is impossible without  
**change**, and those who cannot  
**change** their minds cannot  
**change** anything.

George Bernard Shaw



*small molecule is the key*

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