

CONFIDENTIAL



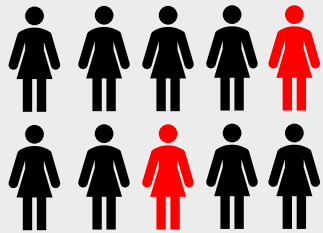
B I M I N I

Where growth comes to rest

BIMINI BIOTECH - PITCH DECK



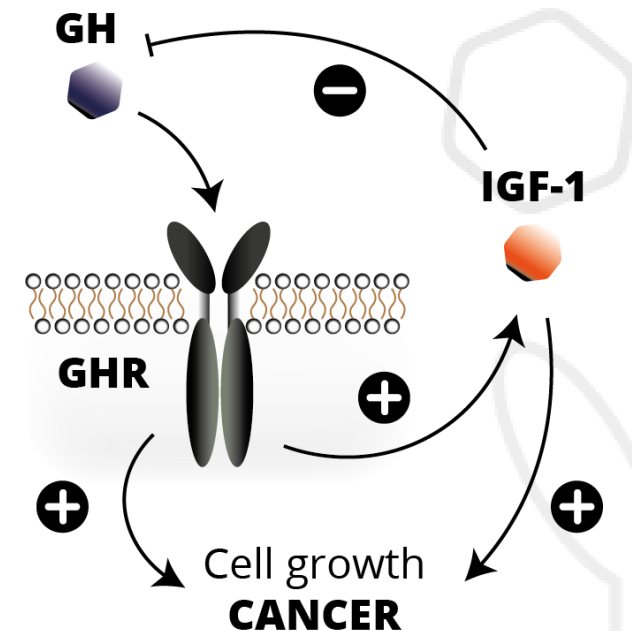
TRIPLE NEGATIVE BREAST CANCER (TNBC) – A MAJOR UNMET NEED



20%
of breast cancer
cases are TNBC

- Therapeutic intervention is **very difficult** as molecular targets are absent.
- Over **125,000 cases** every year globally.
- TNBC is an **aggressive form** of breast cancer with poor prognosis (40% relapse rate).
- TNBC affects **younger women** (40-50 years).

Growth hormone (GH) and Insulin-like growth factor 1 (IGF-1) axis is a major driver of TNBC



GHR is a promising molecular target for cancer therapeutics – however, current approaches have failed

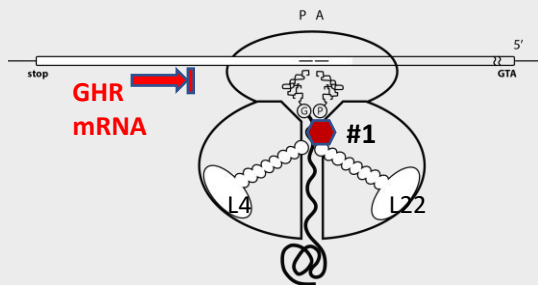
[Expert Rev. Endocrinol. Metab. 6, 2011, 71–84](#)



OUR APPROACH – A NOVEL MODE OF ACTION

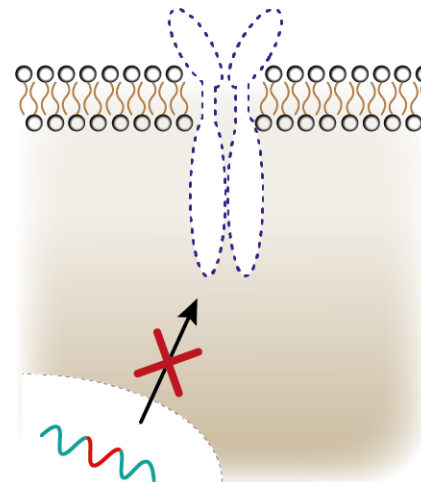
INHIBITION OF GHR SYNTHESIS

- BIMINI identified a small molecule that **binds in the tunnel** of ribosomes
- mRNA levels **not affected**
- It binds to a C-terminal **specific amino acid** sequence of the GHR and **stalls translation** (conserved sequence)
- GHR chain is degraded → **preventing synthesis of GHR**

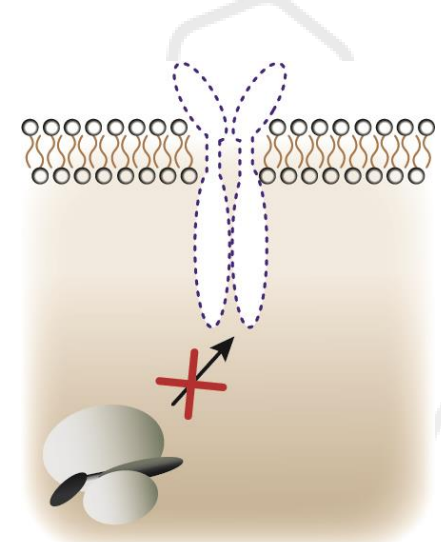


BIMINI's approach effectively mimics nature as seen in Laron Syndrome

LARON SYNDROME (Dwarfism)



BIMINI'S APPROACH



[Sci Transl Med 3, 2011, 70ra13](#)

✓ Confirmatory ribosomal sequencing experiments ongoing (Ohmx.Bio).



PROOF-OF-CONCEPT OF OUR LEAD COMPOUND

HIT-TO-LEAD SELECTION

- **>39k compounds** screened in primary cell-based assay (**novel *in vitro* cell assays**)

38.720 small molecules

109 primary hits

10 primary hits + 122 analogues

17 hits

2 hits + 109 new analogues

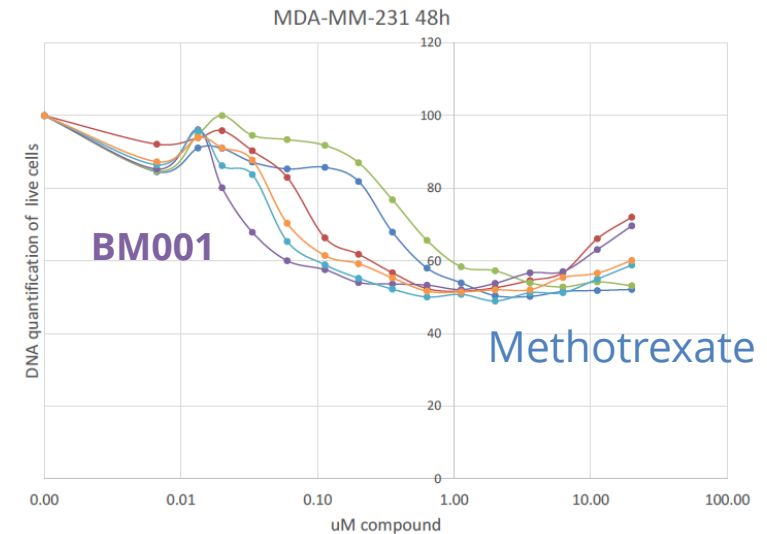
14 hits

3 best hits

- Small molecule **BM001** selected as prime candidate (IC50: 30nM; mr=334)

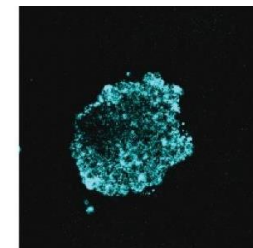
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- ✓ **BIMINI's BM001** shows decrease in cell viability of TNBC cells. Further *in vitro* experiments ongoing (Oncoleads).

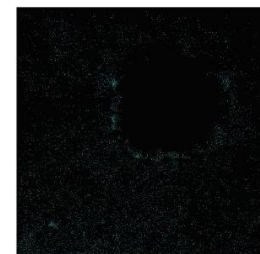


- ✓ **BIMINI's BM001** inhibits GHR synthesis in organoids derived from dog breast cancer cells

Control



BM001

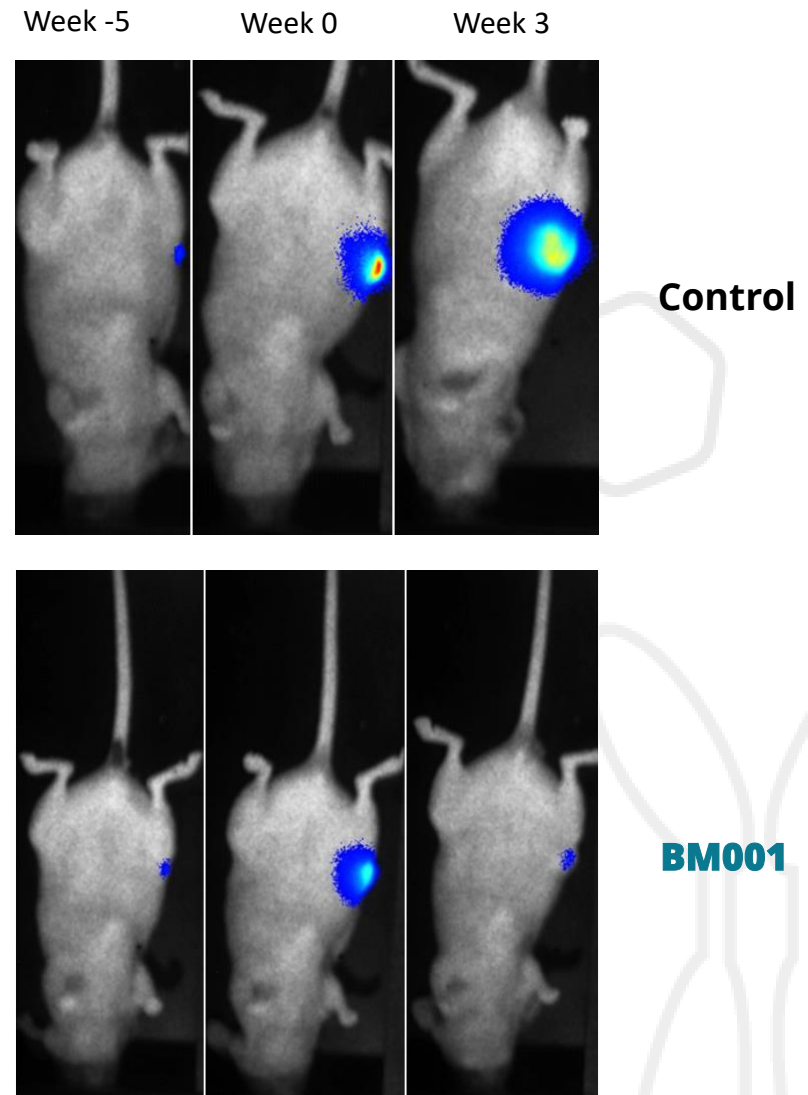
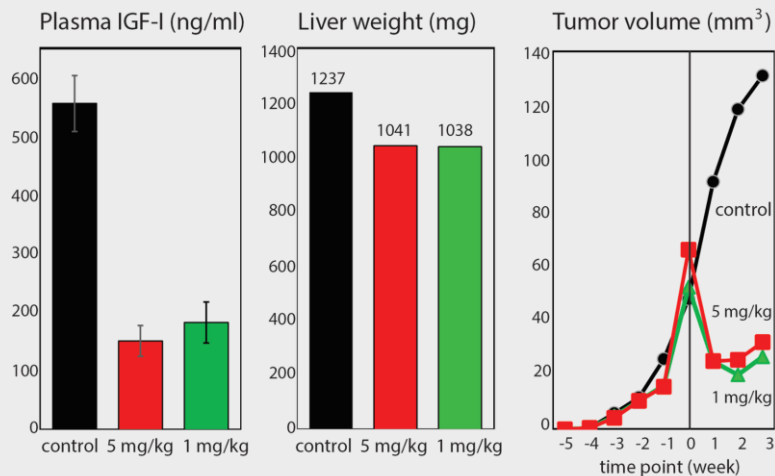




PRE-CLINICAL VALIDATION - IN VIVO EFFICACY

SAFETY AND EFFICACY

- **Tumour suppression** in a xenografted TNBC mouse model
- Reduction in **serum IGF-1** in mouse models
- **Excellent tolerance** after 3 weeks of high dosing (1-5mg/kg)

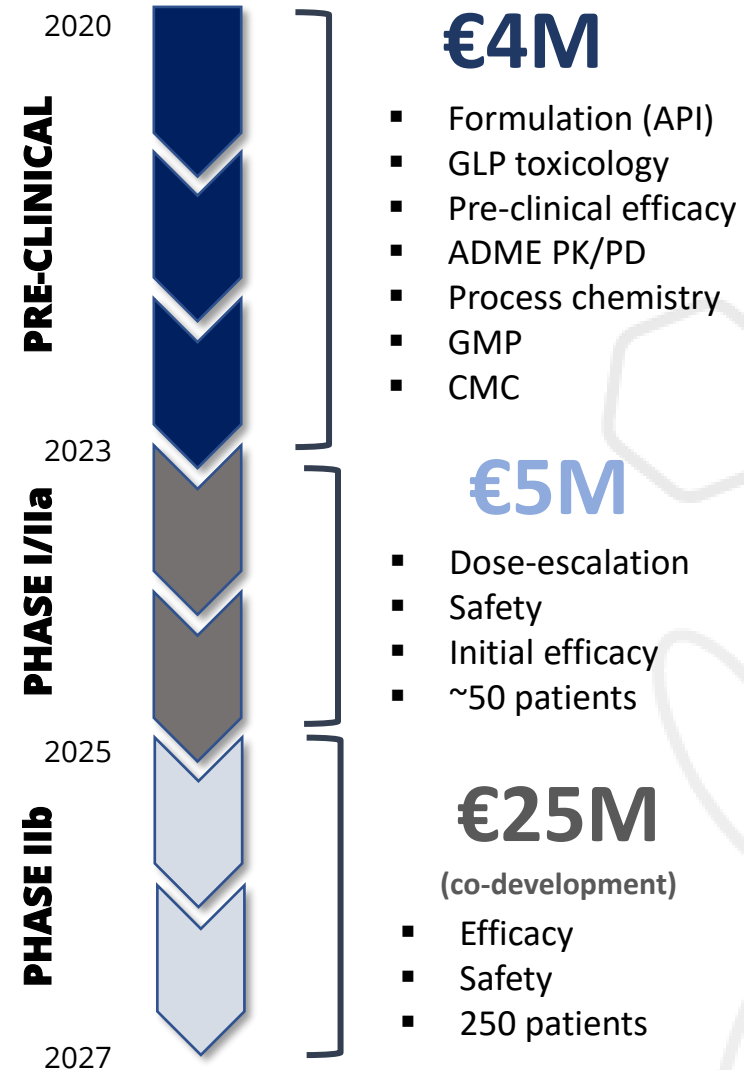




DEVELOPMENT AND FINANCIAL ROADMAP

BUSINESS STRATEGY

- **IP has been filed** – BIMINI exclusive worldwide license
- **Out-license compound** to large pharma partner after phase I/IIa or after co-development in phase IIb
- **Expand portfolio** for other indications
- **Total funding requirements:**
 - non-dilutive: €4M
 - VC/Seed financing: €5M
- **Current finance round:**
 - Seed-investment: €1-2M towards IND/CTA filing
- **Funding obtained**
 - Winner Venture challenge (**€25k**)
 - NWO Take-off-1 (**€40k**)





COMPETITION

COMPETITORS IN TNBC

- **Neo-adjuvants, PARP inhibitors** and immune checkpoint inhibitors (**PD-1**).
- Main disadvantage - **poor efficacy** (response rates 30-50%) and **major side effects**

COMPETITORS TARGETING GHR

- Core focus on anti-GHR **antibodies**, **antisense** oligonucleotides, GH **antagonists** and blocking GH **secretion**
- Main disadvantage - no reduction in serum **IGF-1 levels**; only block endocrine and **not autocrine**; difficult **delivery**; not targeted at TNBC.

AstraZeneca



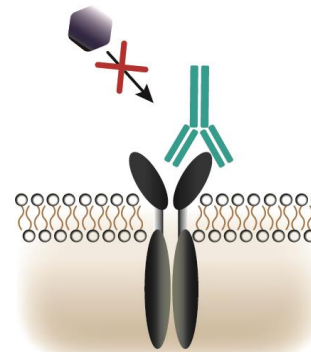
MERCK



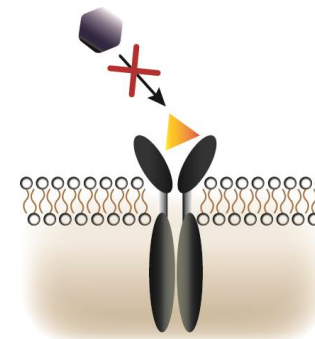
Roche



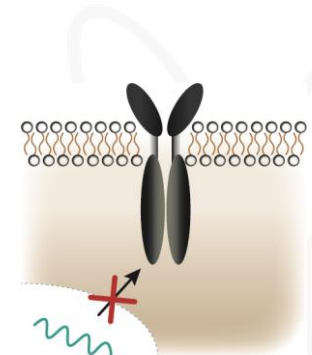
BMC Medicine 17, 2019, 90



Anti GHR-antibodies



GH analogs and small molecules



Antisense oligonucleotides





BIMINI'S TEAM

A BALANCED MIX OF SCIENCE AND BUSINESS

- A combination of **scientific KOLs**, experienced **business experts** and **young entrepreneurs**.
- **A strong advisory board** - expertise in medicinal chemistry, preclinical drug development and out-licensing
- Aim to bring in more clinical, regulatory and business expertise on-board.

STRATEGIC PARTNERS



MANAGEMENT TEAM



DIGVIJAY GAHTORY, PhD
CEO



MAURITS VAN DEN NIEUWBOER, PhD
COO



PROF. GER STROUS
CSO

ADVISORY BOARD



HENK VIËTOR, MD, PhD
Business advisor



PROF. MADELON MAURICE
Scientific advisor

- JOHAN TIJHUIS, PhD** – CEO (SPECS)
PETER MAAS – Med. Chem expert (SPECS)
JUDITH SMIT, PhD – Financing expert (Nebula Participations)
JAN MOL, IR, PhD – Pre-clinical expert (UU)
CARINE V/D BRINK – Legal expert

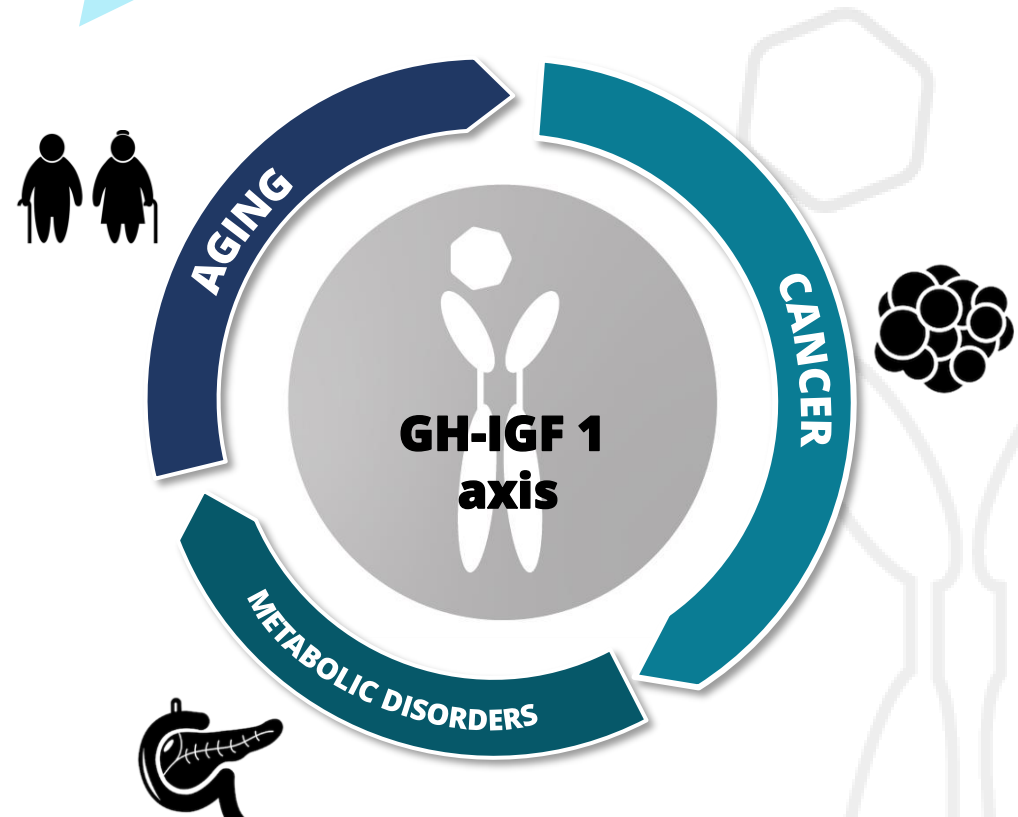


BIMINI'S VISION AND AMBITION

LEADING INNOVATOR IN GHR BASED THERAPEUTICS

- **TNBC as a showcase** and go to market for lead compound BM001
 - Future applications in other cancers
-
- Development of a drug discovery platform around GH/IGF-1 axis for other disease types. For example:
 - **Ageing** – lower GH/IGF-1 results in longevity (centenarians)
 - **Metabolic disorders** – lower IGF-1 results in higher insulin sensitivity

"At BIMINI, we aim to become the leading innovator in GHR based therapeutics – for a longer and healthier life"





"WHAT HAPPENS IF GHR IS **ABSENT?**"



NORMAL

Average lifetime:
200 days



LARON DWARFS

No cancer, no
diabetes



GHR KNOCK-OUT

Average lifetime:
300 days (!), no cancer





B I M I N I

THANK YOU

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