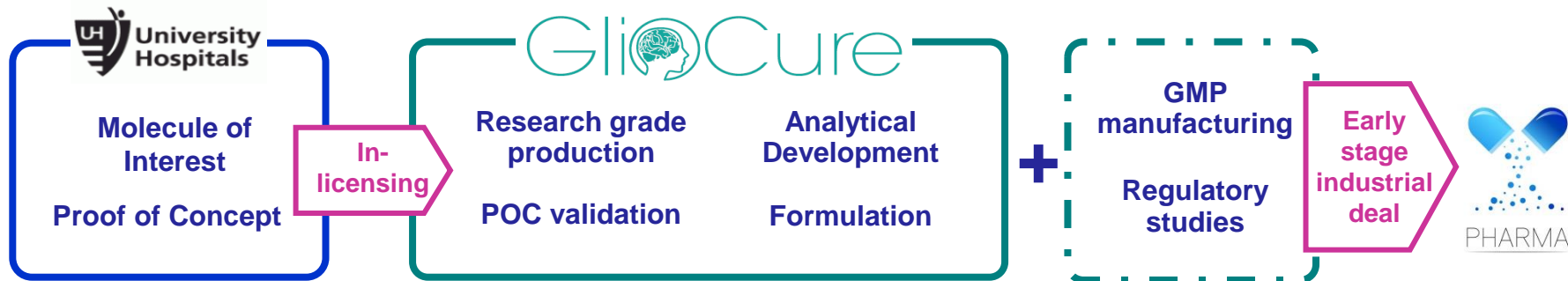


# GlioCure

*From discovery to IND in neuro-oncology*



# A preclinical drug-development company focusing on building a comprehensive anti-brain tumor portfolio



## Management



**Louis-Marie BACHELOT, CEO**  
Biotech entrepreneur, MA, MSc



**Claire LEPINOUX-CHAMBAUD, Head of Research**  
Neurosciences researcher, PhD



**Paul BALDWIN, Head of Pharm. Development**  
R&D manager, B.Pharm., PhD

## Scientific & Medical Advisory Board

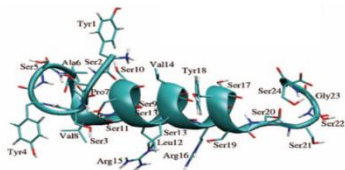
**J. EYER, PhD** Research Director INSERM 1066 / CNRS 6021  
Angers University

**M-E HALATSCH, MD, PhD** Vice Chair, Prof. of Neurosurgery  
Ulm University

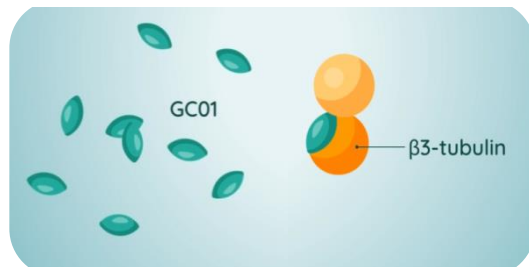
**J-P BIZZARI, MD, PhD** Chair New Drug Advisory Committee  
European Organisation for Research & Treatment for Cancer

**J. RICHARD, PhD, HDR** Chief Development Officer  
MedinCell

# GC01: a “best-in-class” anti-tumoral peptide

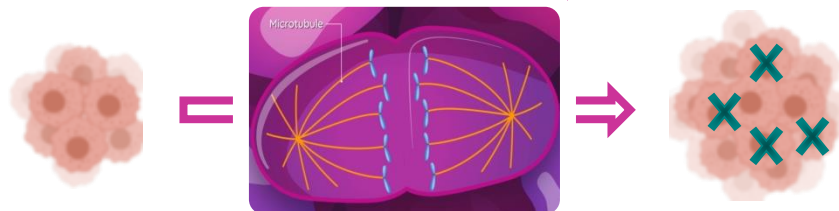


**$\beta$ 3-tubulin inhibitor**

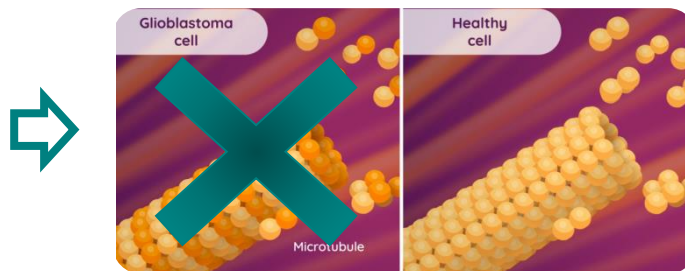


**Two patent families delivered**

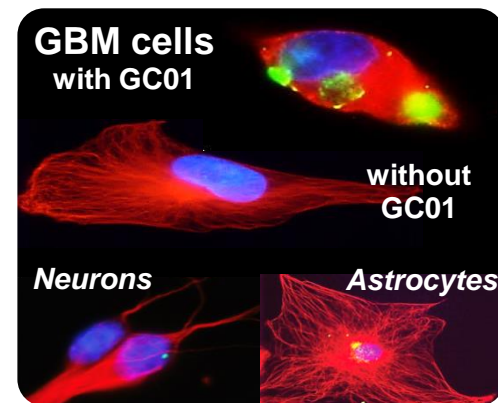
WO2005121172  
WO2011073207



**Selective  
anti-mitotic activity  
vs  
other “tubulin binders”**



**Strong  $\beta$ 3-tubulin expression  
in various human cancers:  
including  
Central Nervous System (CNS) tumors  
(85%-100%)**



# Three formulations to progressively tackle the main and most urgent unmet medical needs in neuro-oncology

1

## GC01<sub>i.v.</sub>: Aqueous i.v. solution

- Systemic use in all patients to prevent primary brain tumors relapse or secondary brain metastases
- Technical batch manufacturing in progress with top European CDMOs



### Brain tumor metastases

**Median survival 6 months**

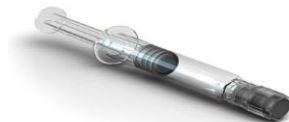
**2-year survival < 2%**

**~ 1,600,000 deaths worldwide per year**

2

## GC01<sub>gel</sub>: Auto-gel in prefilled syringe

- Local deposit during surgery of operable patients
- Preliminary pharmaceutical characterization run in house



### Glioblastoma

**Median survival 15-18 months**

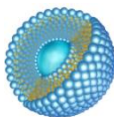
**5-year survival < 5%**

**~ 200,000 deaths worldwide per year**

3

## GC01<sub>Liposome</sub>: Long-acting i.v. solution

- Systemic use in all patients
- 3-year collaborative R&D project ongoing



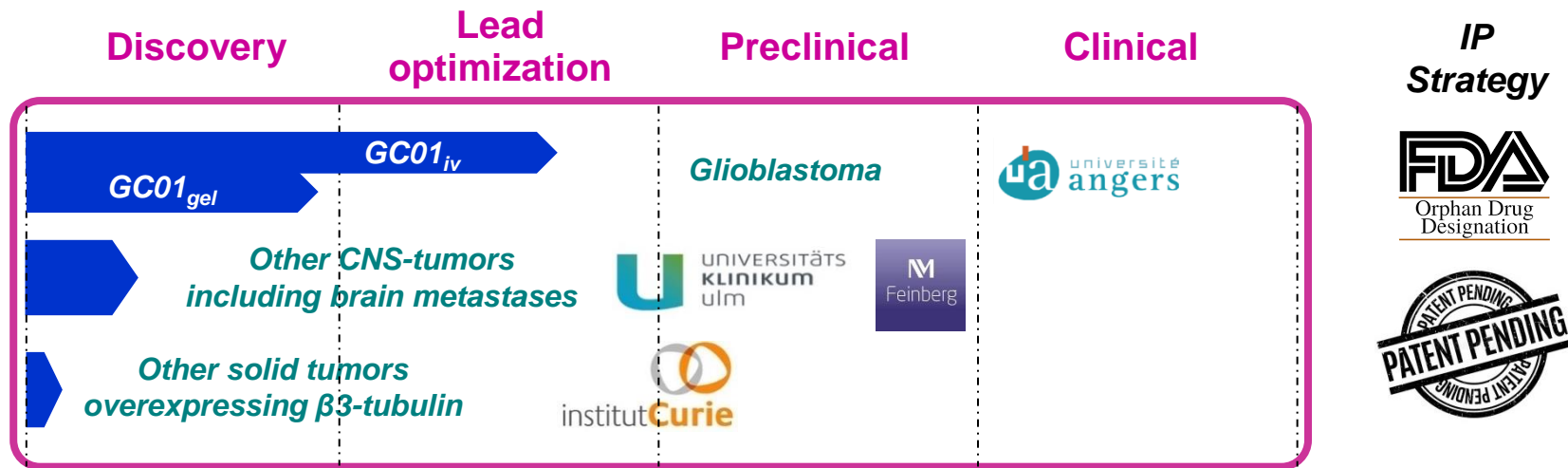
### Diffuse Midline Glioma

**Median survival 9 months**

**2-year survival < 5%**

**~ 5,000 deaths worldwide per year**

# Development in multiple cancers with glioblastoma as proof of concept



## *In vitro / Ex vivo*

- ✓ Preferential uptake in GBM cells
- ✓ No toxicity to healthy brain cells
- ✓ Efficacy on a large range of human GBM cells, including TMZ-resistant GBM stem-cells

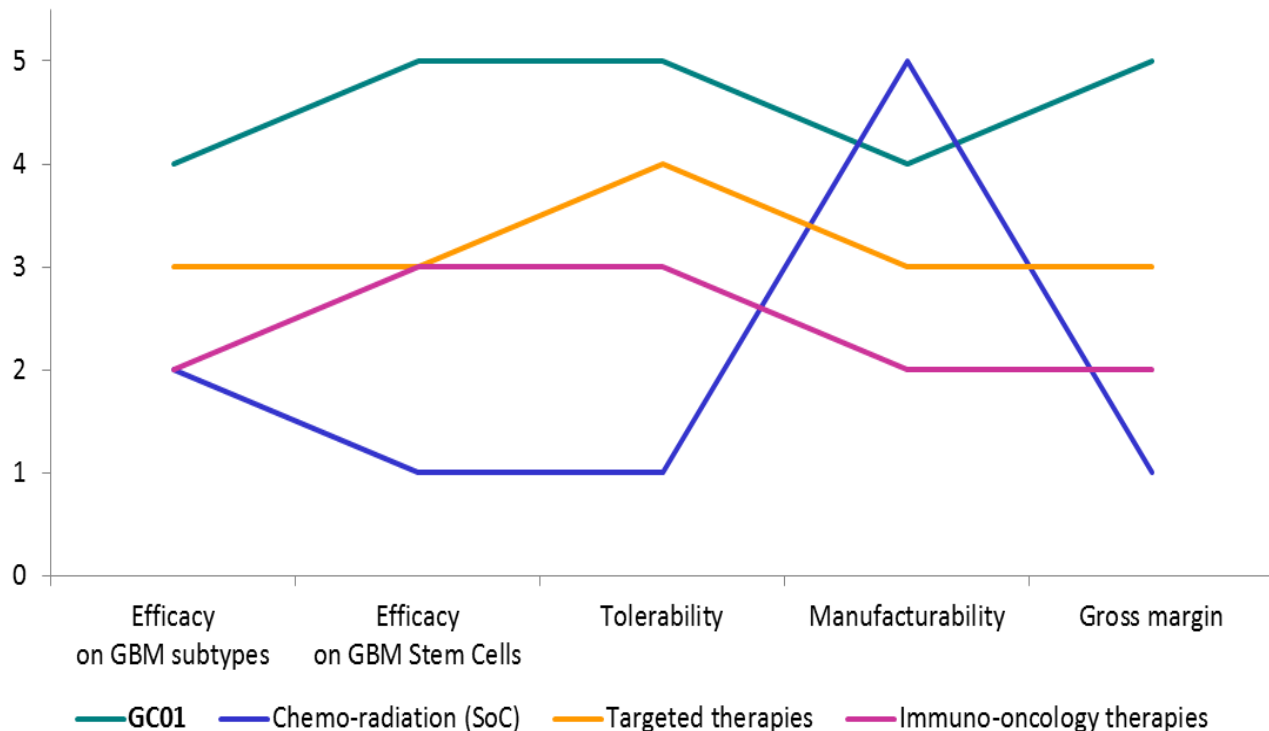
## *In vivo*

- ✓ Significant anti-GBM activity after only one cycle of intravenous administrations
- ✓ Strong safety profile with no local or systemic toxicity on healthy tissues

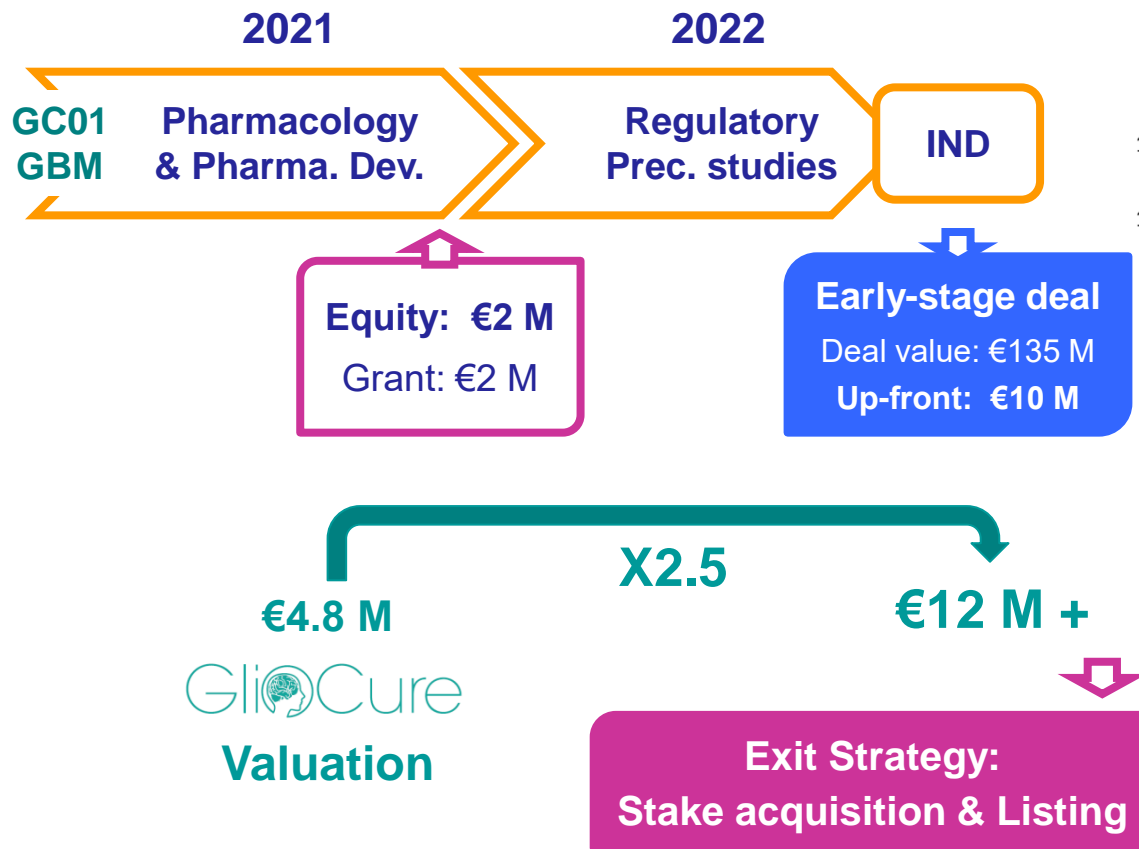
# GC01 has the potential to become part of the future Standard of Care

- 475 active clinical trials worldwide
- Only 10 therapies in active clinical phase III trials
- No other anti- $\beta$ 3-tubulin specific drugs

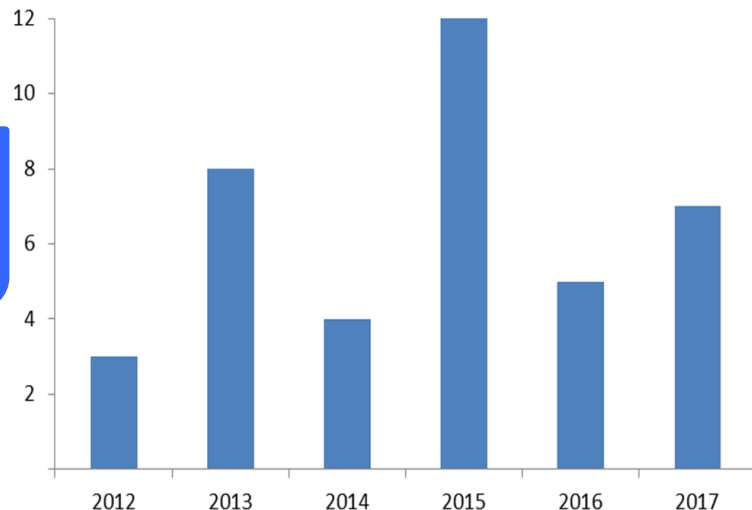
Source:  
[www.clinicaltrials.gov](http://www.clinicaltrials.gov), Nov. 2020



# Looking for €2 M in equity to develop GC01 until the IND and convince a pharma to sign an early-stage deal



Worldwide agreements for GBM at IND filed stage



Total Deal Count	Average Deal Value (M USD)	Average Upfront Payment (M USD)	Average Milestone Payments (M USD)
39	161,34	11,47	89,48

Source: GlobalData Pharma Intelligence Center, 2018



# *Come to visit us in Angers*



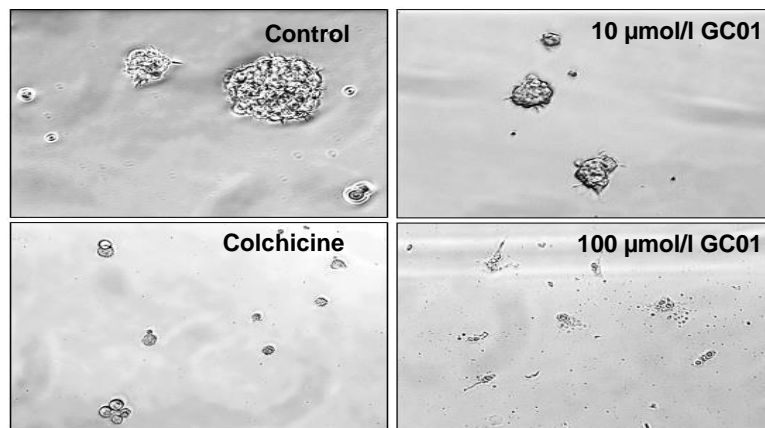
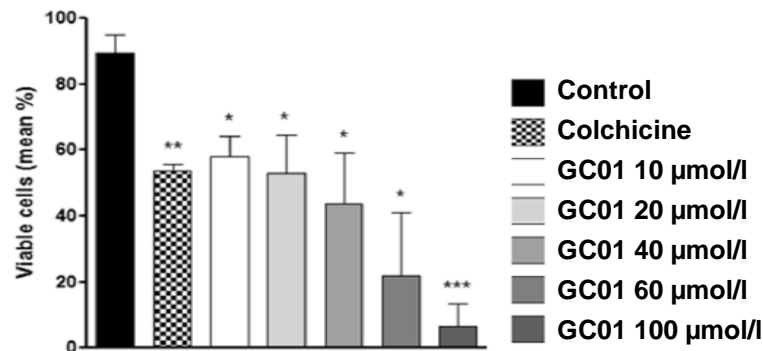
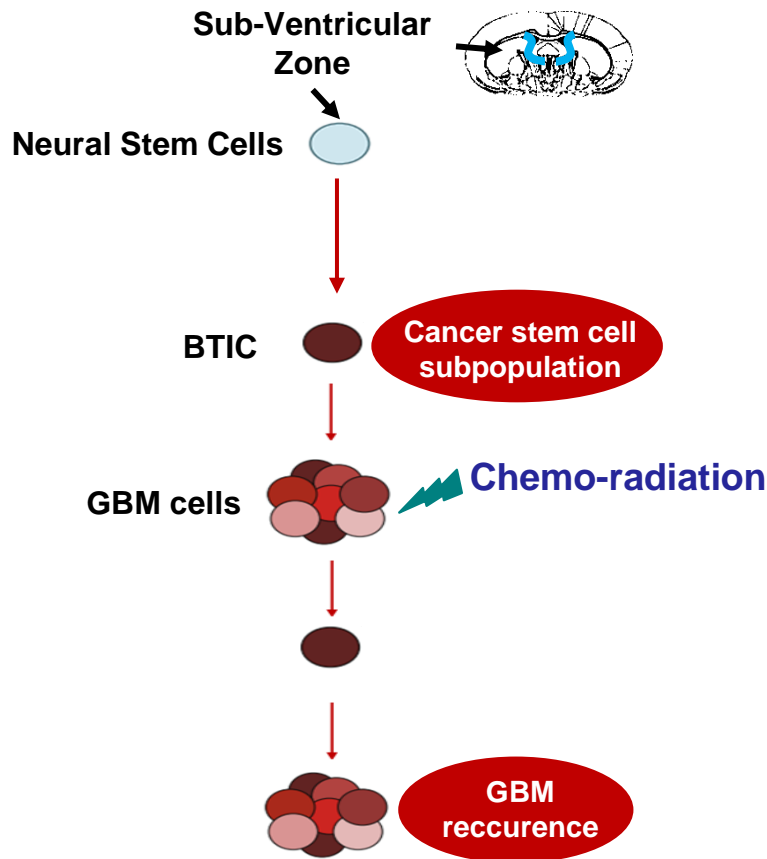
**Im.bachelot@gliocure.com**  
**+33 (0)6 14 03 38 26**  
**www.gliocure.com**



## **Appendix 1:**

**GC01 proof of concept in glioblastoma**

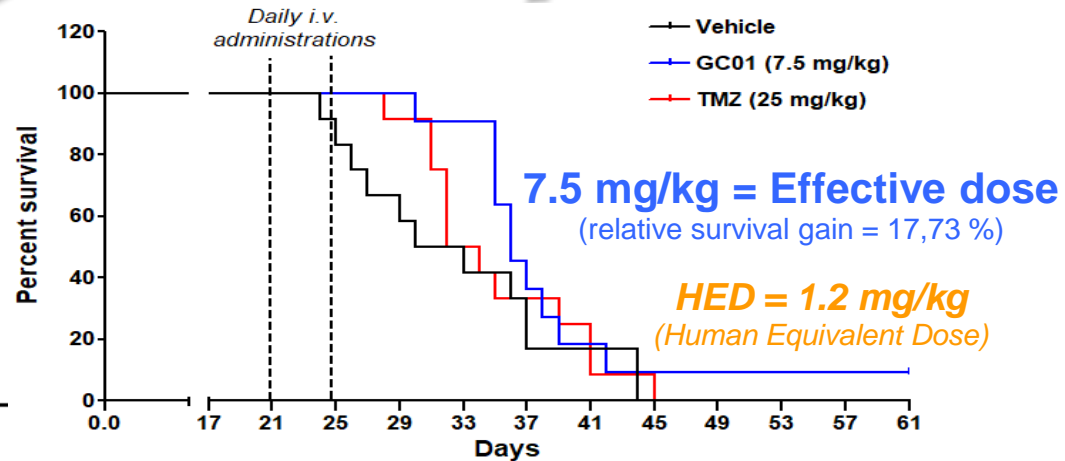
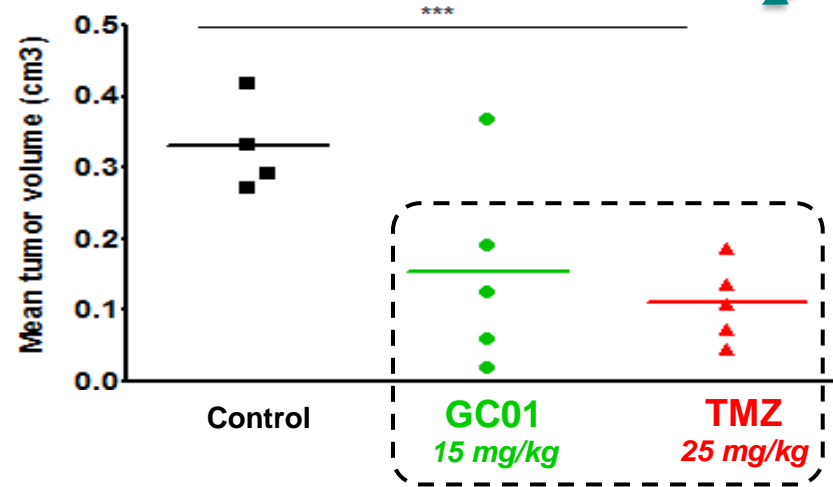
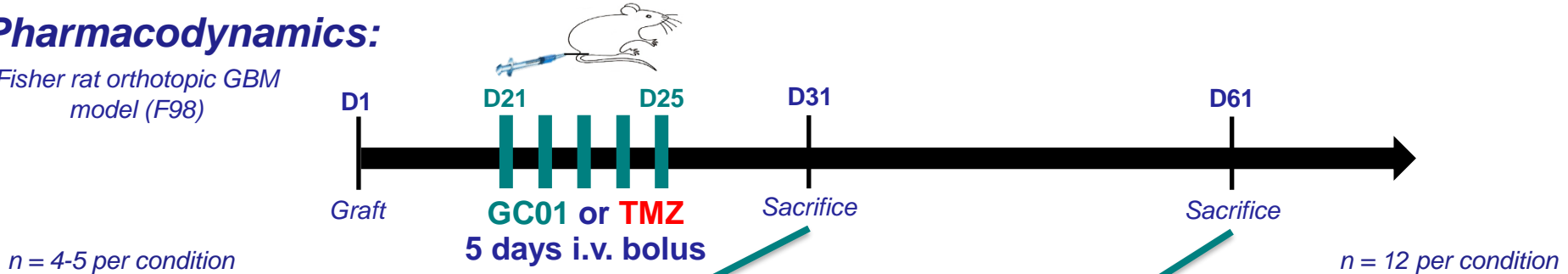
# GC01 shows activity on human GBM stem-cells that drive resistance to chemo-radiation and recurrence in patients



# GC01 demonstrates significant anti-GBM activity after only one cycle of iv administrations

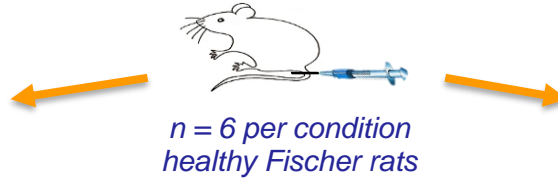
## Pharmacodynamics:

Fisher rat orthotopic GBM model (F98)



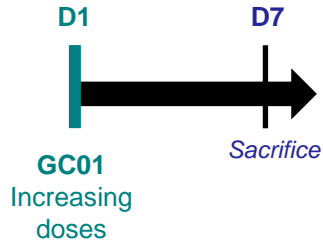
Lépinoux-Chambaud et al. for submission

# GC01 has a strong safety profile with no toxicity on healthy tissue



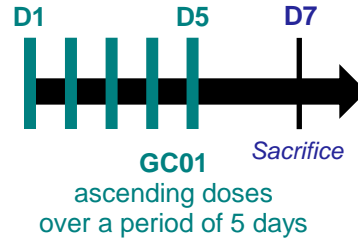
## Toxicological studies:

### Single dosing



**MTD = 30 mg/kg**  
(Maximum-Tolerated-Dose)

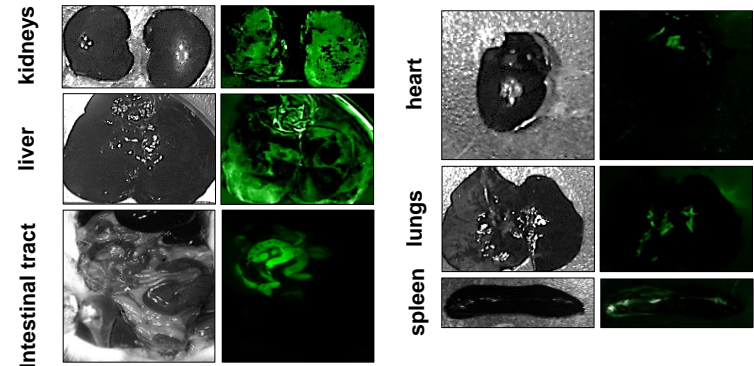
### Multiple dosing



**MTRD = 15 mg/kg**  
(Maximum-Tolerated-Repeat Dose)

## Pharmacokinetics and biodistribution:

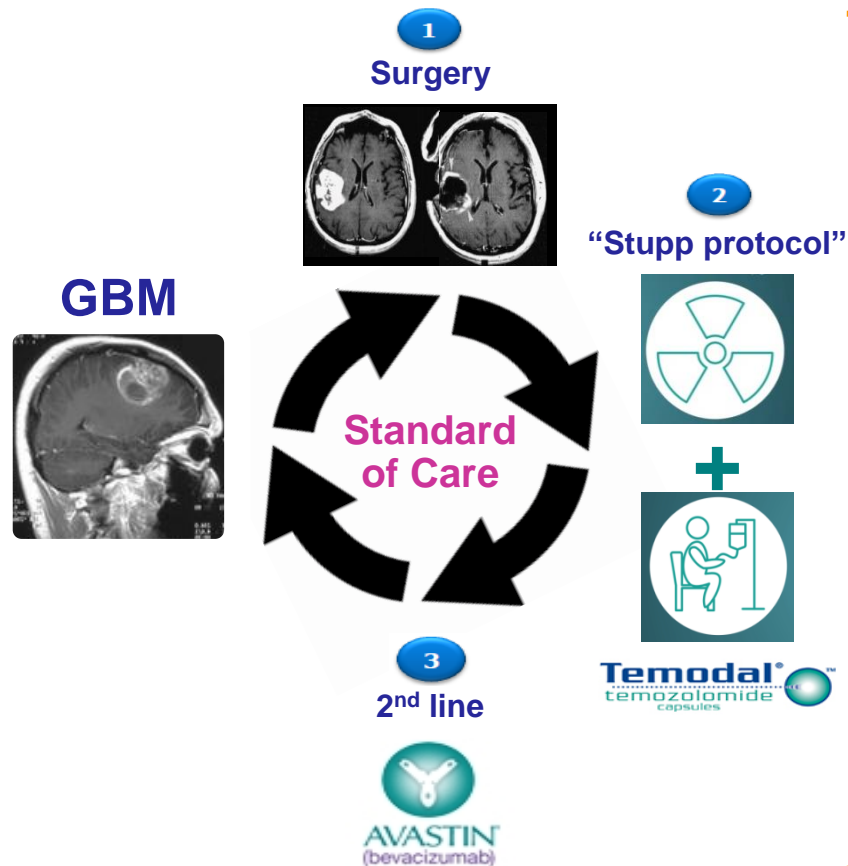
- Half-life :  $T_{1/2} = 6 \text{ min}$
- Volume of distribution:  $V_d = 0,07 \text{ L/kg}$
- Total clearance (plasmatic):  
 $CL = 1,4 \text{ mL/min/kg}$



**Appendix 2:**  
**Development plan, competition**  
**and dealflow**

# Glioblastoma (GBM) :

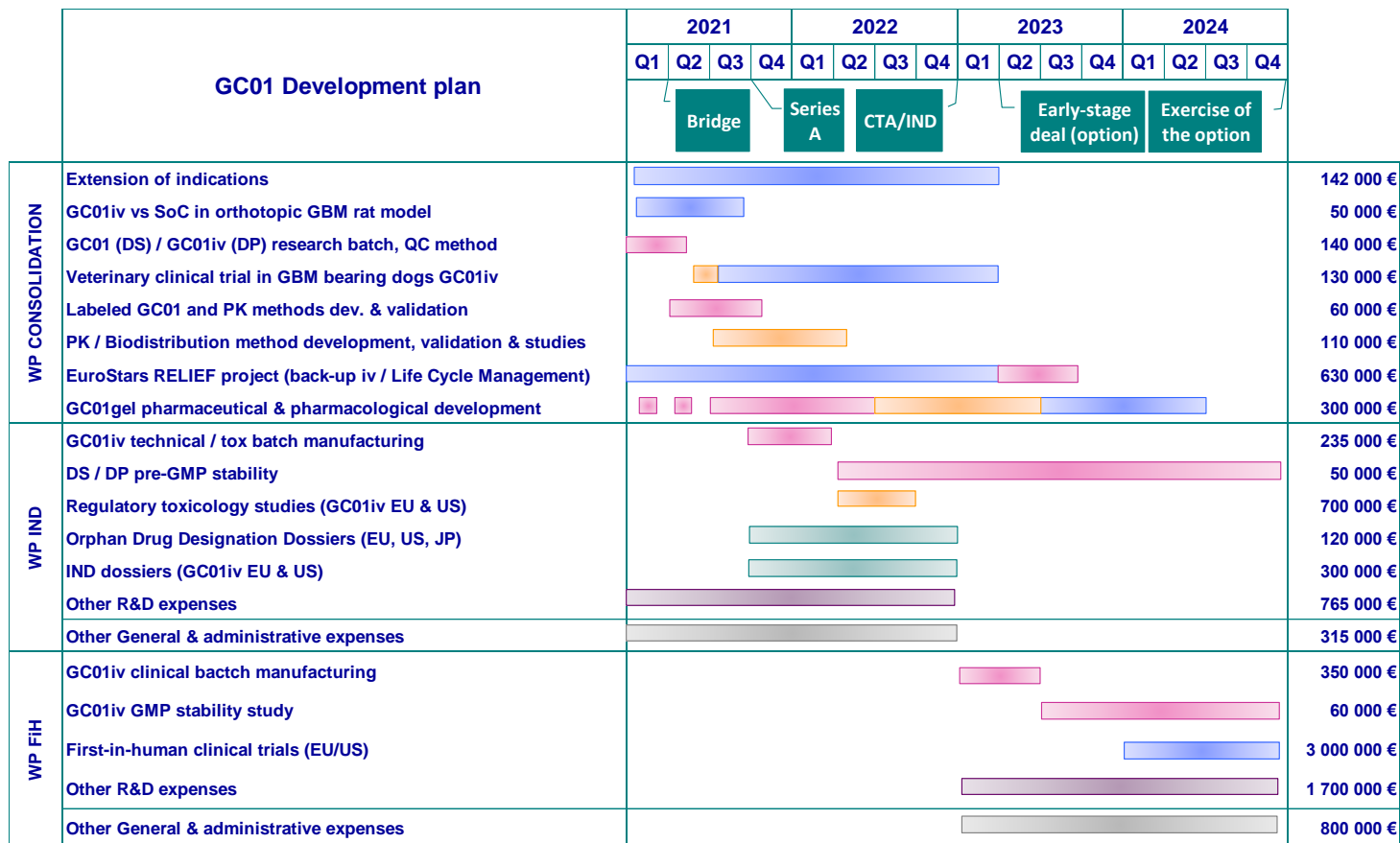
## The largest, most urgent, unmet medical need in neuro-oncology



- ~ 40% of malignant primary brain tumors
- Median survival of 15 to 18 months
  - 5-year survival < 5%
- ~ 200.000 deaths per year worldwide



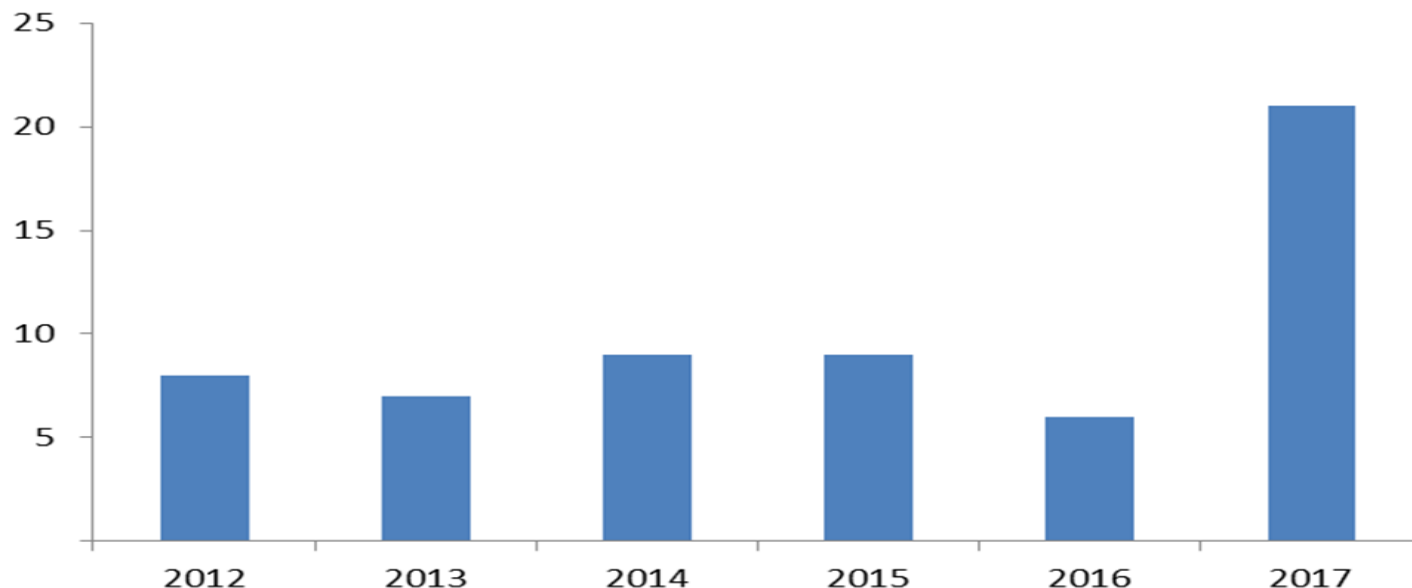
# A clear path to first-in-human studies with risk mitigation and product life cycle management opportunities



# Active phase III clinical trials worldwide

Company	Drug name	Mechanism of action
Abbvie	ABT-414 (Depatuxizumab Mafodotin)	EGFR targeting and antimitotic activity (TUBB) via nucleotide exchange blocker (GDP for GTP)
Bayer	Regorafenib	Anti-angiogenic activity
Bristol-Myers Squibb / ONO	Nivolumab	Anti-PD1 monoclonal antibody
Celgene	Marizomib	Proteasome inhibitor
Denovo Biopharma (Lilly)	Enzastaurin Hydrochloride	Serine/Threonine kinase inhibitor of the PKC beta and AKT pathways
Diffusion Pharmaceuticals	Trans Sodium Crocetinate	Tissue re-oxygenation
Johnpro Biotech	TMZ + Rapamycin + chloroquine	Lysosome-dependent apoptotic cell death
Laminar Pharmaceuticals	LP561A1 (2-hydroxyoleic acid)	Sphingomyelin Synthase 1 (SMS1) activator with Ras signalling modulator effects
Safe Save Medical Cell Sci. & Tech.	Autologous Dendritic Cell / Tumor Antigen	Adjuvant immunotherapy
Sichuan J.Z. Bio-chemical Sci. and Tech. Dev.	Chlorogenic acid (CHA)	Immunoregulation (repolarizing macrophage from M2 to M1 phenotype)

# Worldwide strategic alliances & licensing agreements for glioblastoma at phase I and phase II stages.



Total Deal Count	Average Deal Value (M USD)	Average Upfront Payment ( M USD)	Average Milestone Payments (M USD)
60	300,75	57,18	390,38

*GlobalData, Pharma Intelligence Center extract, June 2018*