



Glenmark Pharmaceuticals Ltd

WELCOME

A new way for a new world A new way for a new world
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Glenmark Out-Licenses Novel Monoclonal Antibody, GBR 500, to Sanofi

Sanofi to develop GBR 500 for Crohn's Disease and other anti-inflammatory conditions such as Multiple Sclerosis

Upfront payment of US\$ 50 million

- US\$ 25 million will be paid upon closing of the transaction
- US\$ 25 million upon Sanofi's positive assessment of certain data to be provided by Glenmark

Combined upfront and potential development, regulatory and commercial milestone payments could total US\$613 Mn

Glenmark eligible to receive tiered double-digit royalties on sales



Glenmark Out-Licenses Novel Monoclonal Antibody, GBR 500, to Sanofi

Sanofi will have exclusive marketing rights for North America, Europe, Japan, Argentina, Chile and Uruguay

Sanofi and Glenmark will co-market in Russia, Brazil, Australia and New Zealand

Glenmark will retain exclusive marketing rights in India and other countries in the rest of the world





Landmark Deal for Glenmark The Firsts

First novel biologics out-licensing deal for Glenmark

First novel biologics out-licensing deal from Indian company

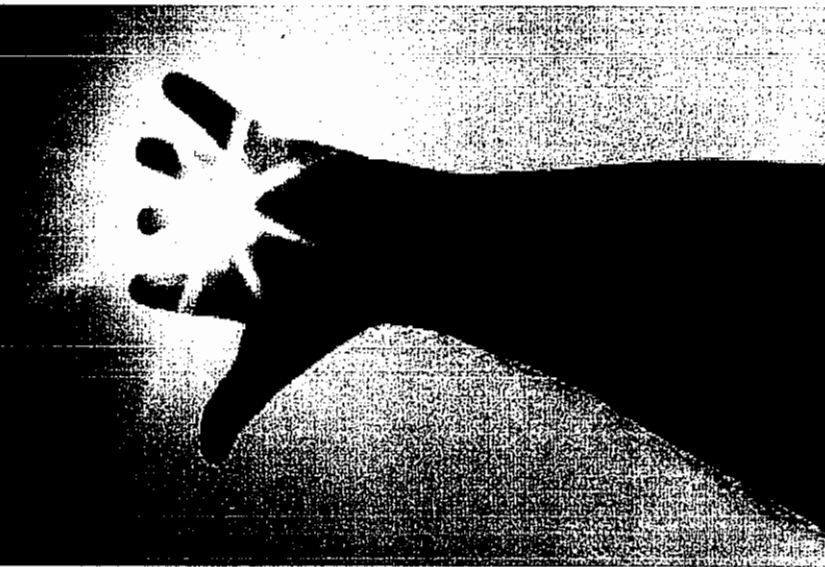


Landmark Deal for Glenmark

Validates Glenmark's capabilities in Biologics arena -
monoclonal antibodies - one of the largest and fastest growing
segment within Biologics

Glenmark recognized as one of the unique global mid-size
pharma companies with presence across Novel *Chemical*
Entities (NCE) as well as Novel *Biological* Entities (NBE)

Second licensing collaboration with Sanofi, one of the largest
pharmaceutical companies in the world



Glenmark Novel Drug Pipeline



Compound	Primary Indication	Target	PC	P I	P II	P III	Mkt
Crofelemer	Anti-diarrheal	CFTR Inhibitor					
GRC 4039 (Revamilast)	Asthma, COPD, Rheumatoid Arthritis	PDE IV Inhibitor		In-licensed from Napo Pharmaceuticals			
GRC 15300	Osteoarthritis Pain, Neuropathic Pain	TRPV-3 Antagonist					
GRC 17536	Neuropathic Pain, Respiratory disorders	TRPA 1 Inhibitor					Out-licensed to Sanofi
GBR 500	Crohn's Disease Multiple Sclerosis, Inflammatory Disorders	VLA-2 Antagonist					Out-licensed to Sanofi
GBR 401	Lymphomas, Leukemias Autoimmune Disorders	Anti-CD19					
GRC 600	Thrombocytopenic purpura Adjunct PCI/ ACS	Anti-Von Willebrand Factor					
GBR 900	Pain	TrkA Antagonist					

In-licensed from Lav Line Genomics S.p.A. (I.L.G.)



Glenmark's Biologics R&D Pipeline and Capabilities : An Update

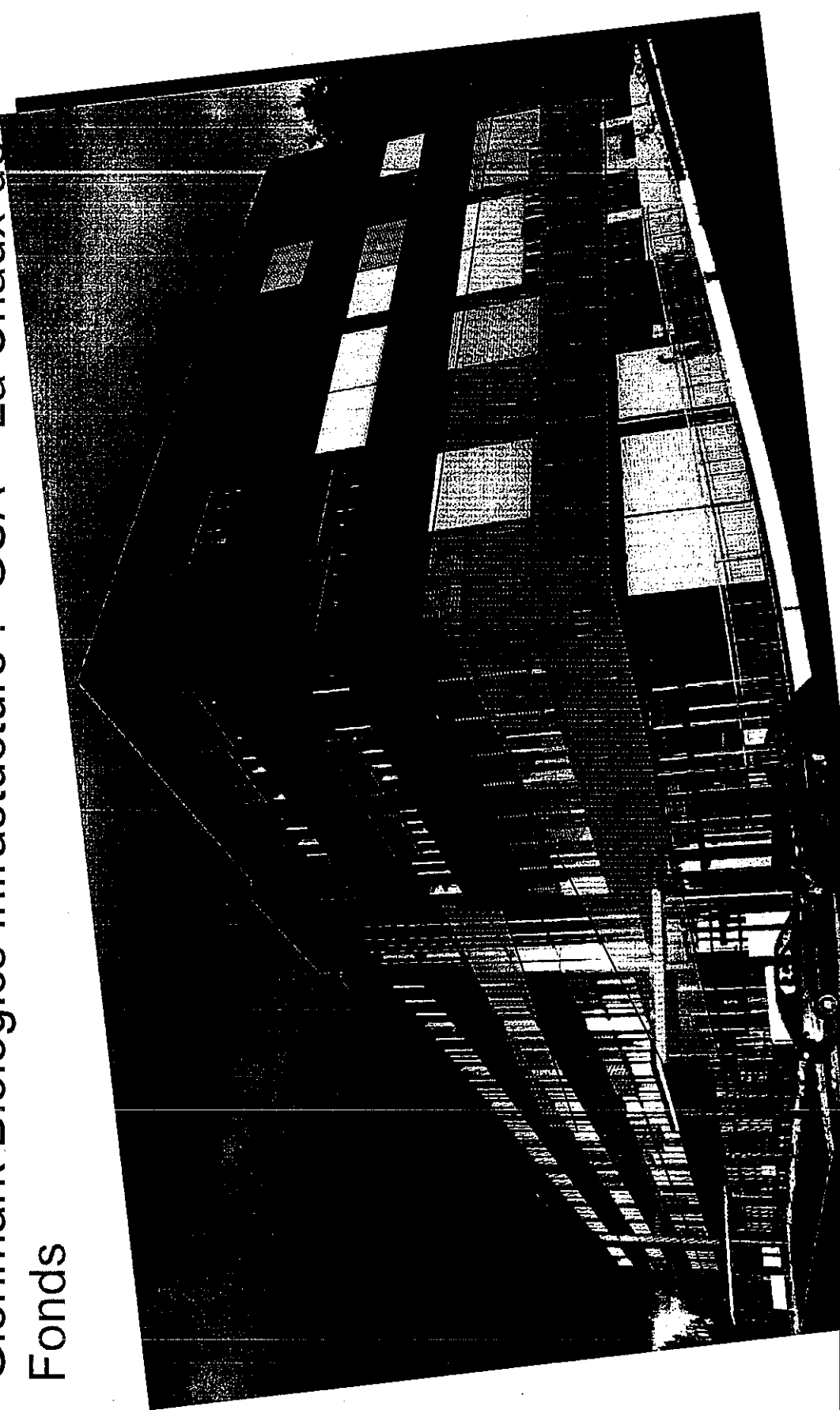
Biologics Infrastructure

Biologics Pipeline

Technologies and Capabilities



Glenmark Biologics Infrastructure : GSA – La Chaux-de-Fonds





Glenmark Pharmaceuticals SA, Switzerland

La Chaux-de-Fonds, Canton of Neuchâtel, Switzerland

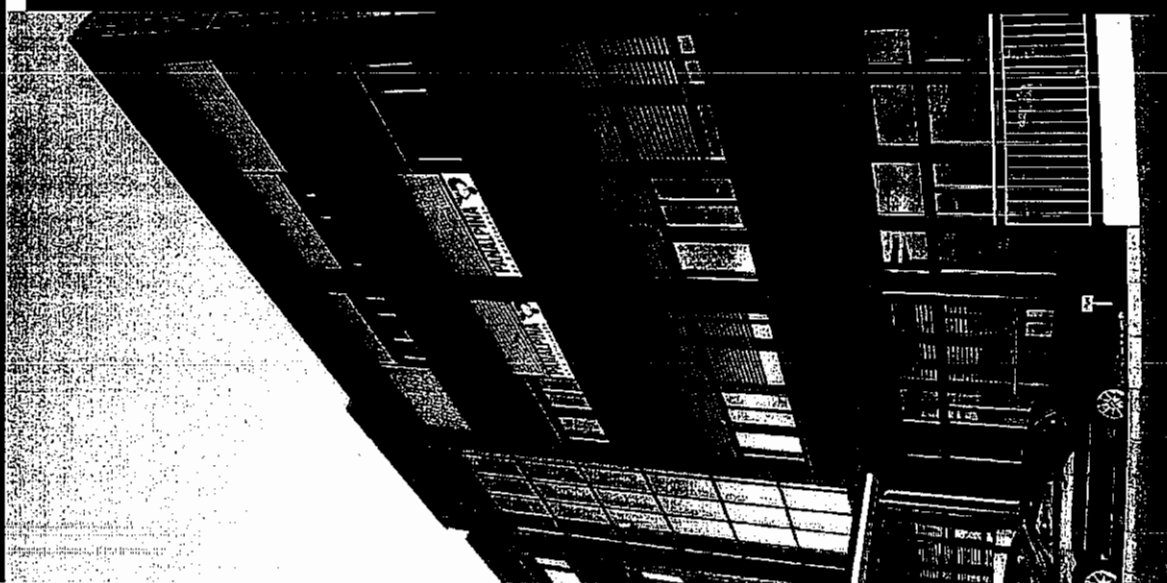
Biologics R&D center

Labs 2006

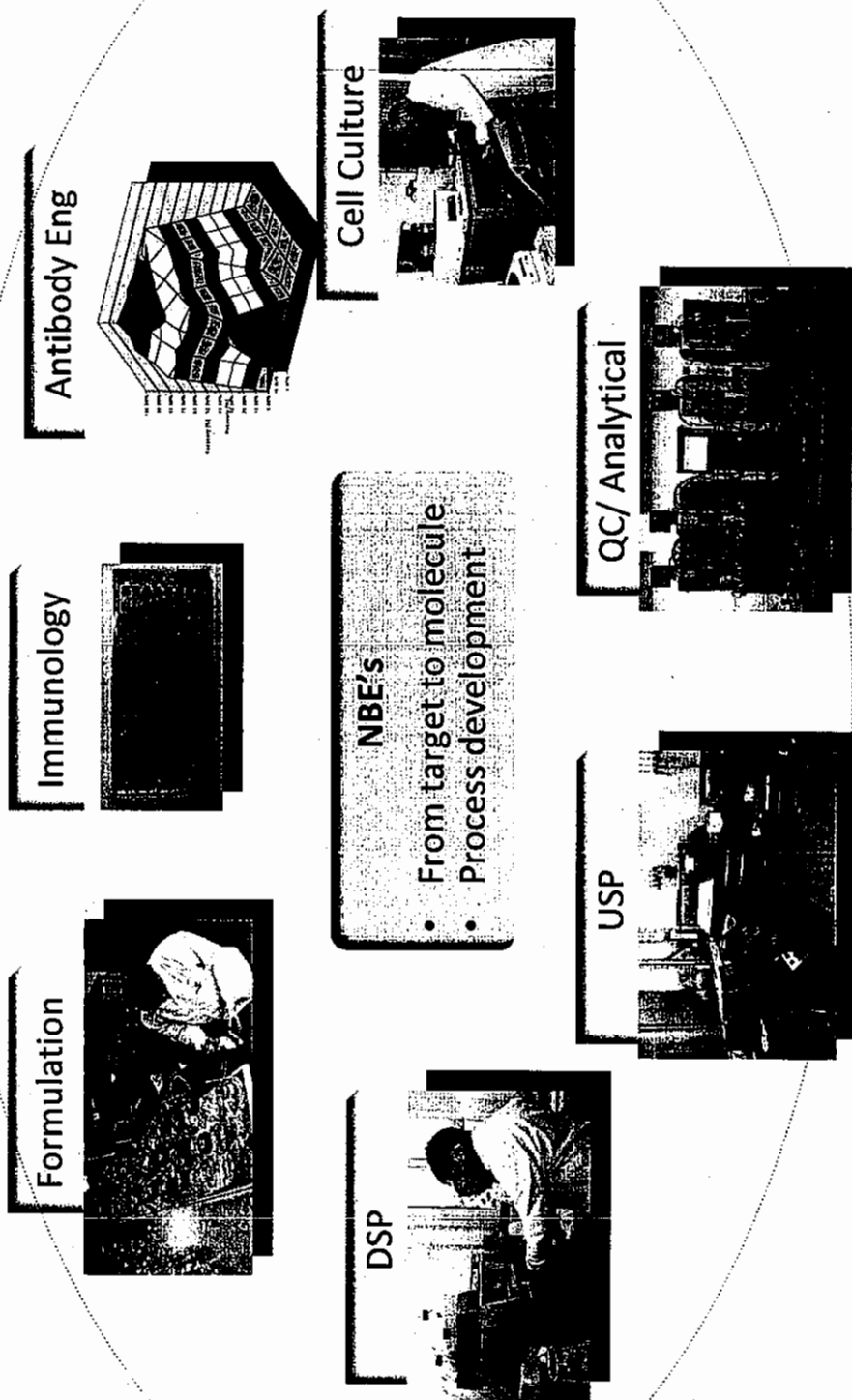
55 scientists, staff from 12 nations

R&D and process development

Focus monoclonal antibody products

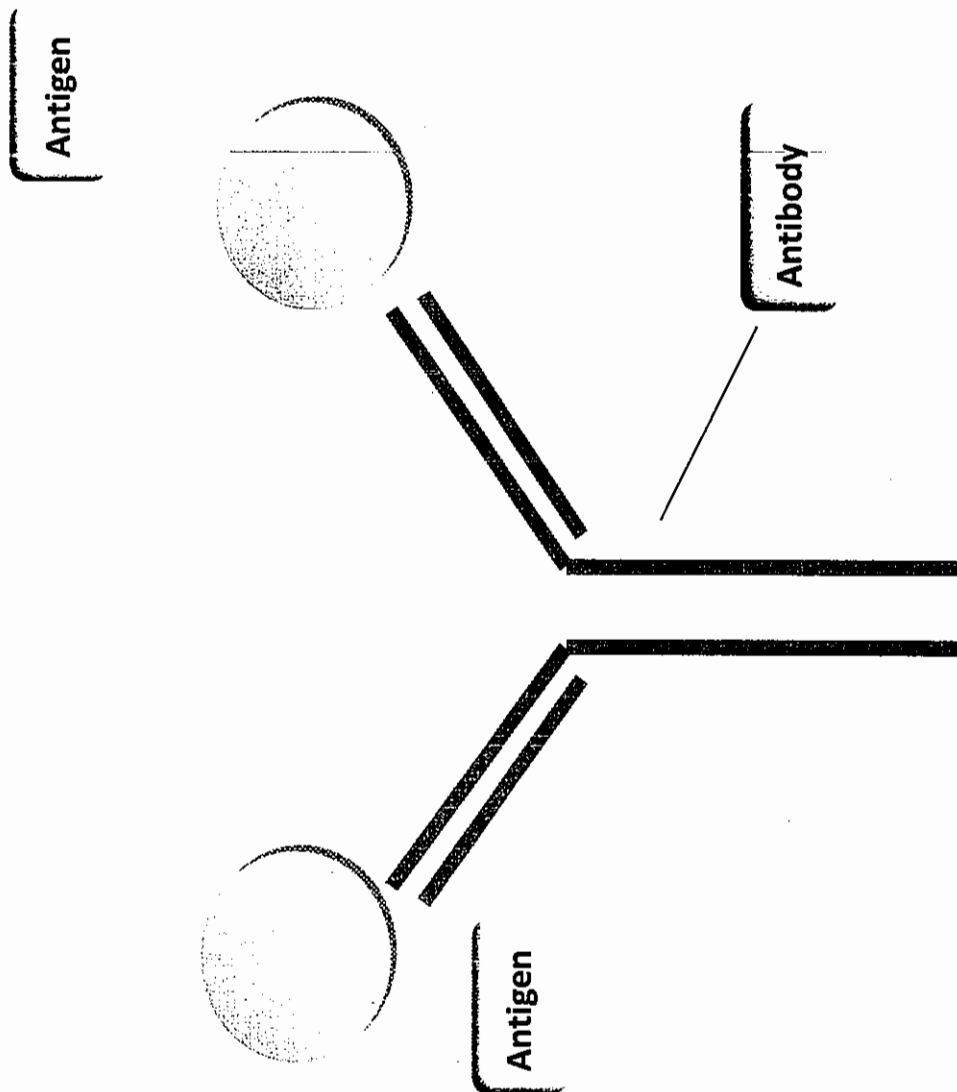


Antibody Capabilities



Subsequent development (pre-clinical and clinical) through Glenmark's common R&D resources in India, UK and US

Antibodies





Why Focus on Antibodies?

Antibodies

Four out of 5 top selling drugs are antibodies

Big pharma companies massively invest into antibodies
>20 antibody products on the market, several hundred in development

Exquisite target specificity

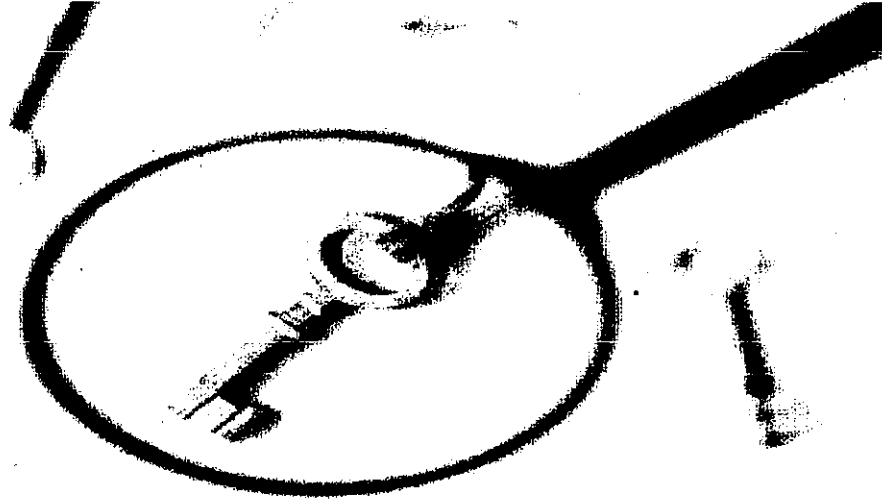
Evolved by nature to bind with high specificity to a target

Other functions, which can be engineered

Assembly line concept

Production and purification "standardized"
- "Transferable" from product to product

Formulations generally stable, but can be a challenge





Glenmark Capabilities

"From target to antibody"

Screening technologies

Antibody engineering

Antibody expression

Antibody purification and formulation

Platform technologies

Own intellectual property or freedom to operate



GBR 500 Key Facts

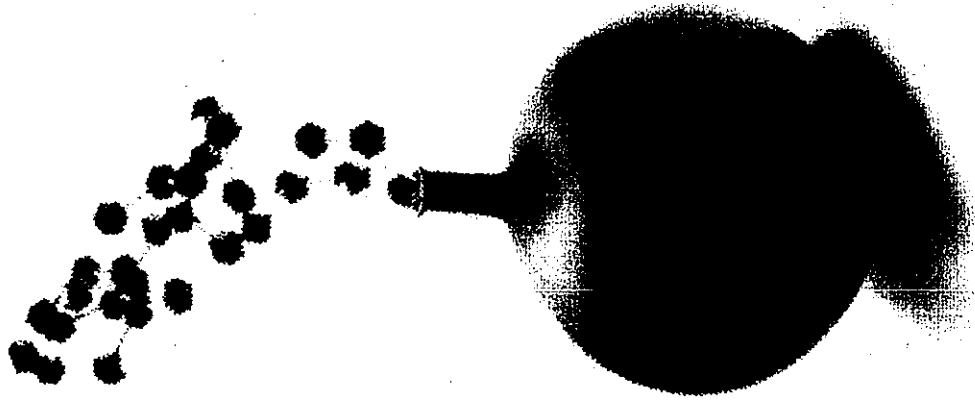
Monoclonal antibody, first in class

Targets α 1 domain of human α 2 β 1 integrin (VLA-2)

Novel mechanism

- Inhibits retention of inflammatory cells at site of inflammation

Target expressed only during inflammation





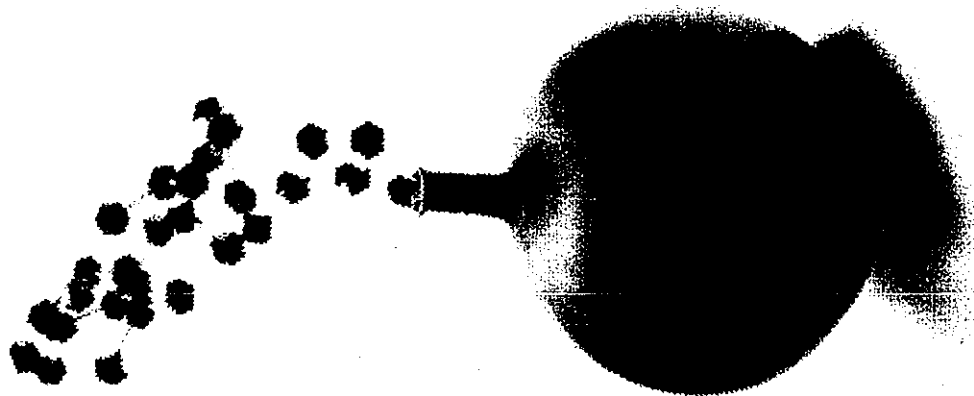
GBR 500

Broad therapeutic spectrum; potential indications:

- Crohn's disease, inflammatory bowel disease
- Multiple sclerosis
- Potentially other inflammatory diseases
- Potential to expand indications to oncology

In-line with mechanism clean toxicological profile

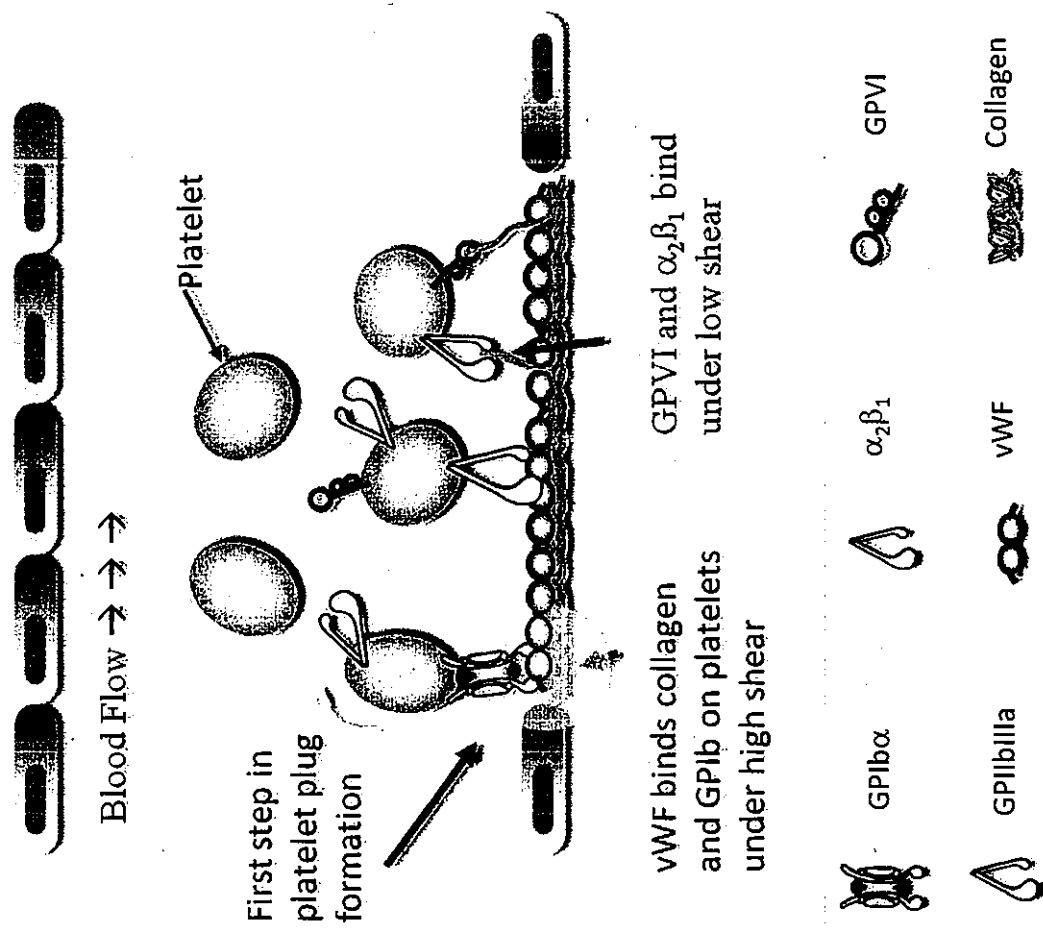
Phase I dosing completed - drug has been well tolerated with a good pharmacokinetic profile



Sub-nM potency

- Inhibits vWF mediated platelet aggregation
- “Neutralises” overactive/over expressed vWF

Compelling efficacy in primate models (Baboon)





GBR 600

Multiple indications

"Neutralization" of overactive/over expressed vWF
E.g. TTP (idiopathic thrombotic thrombocytopenic purpura)

Platelet inhibition
E.g. acute coronary syndrome

Differentiation from other platelet inhibitors

Works in all individuals

Works immediately

No bleeding liability

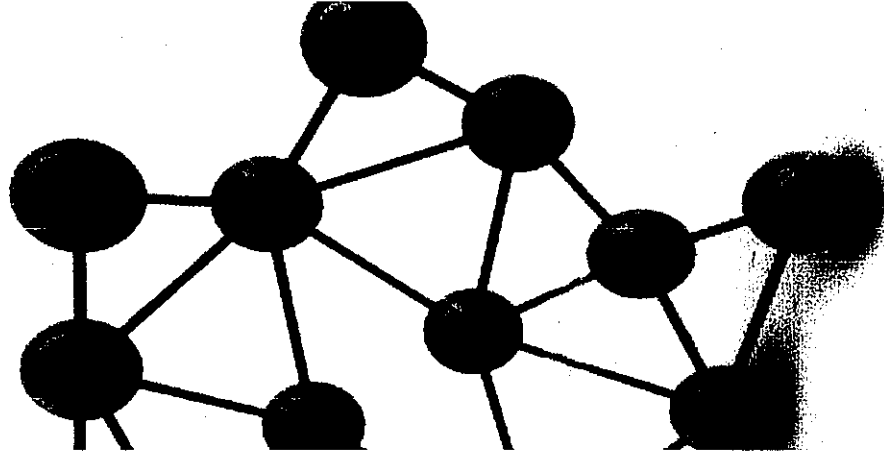
Can be used to "neutralize" overactive/
overexpressed vWF

Excellent safety profile





GBR401 - a better Rituximab



Anti-CD19 antibody

Deplete malignant/auto reactive B cells upon binding

- Same proven concept as Rituximab,
- but broader therapeutic spectrum and potential to overcome Rituximab resistance

CD19

Expressed exclusively on normal and malignant B cells

Broader expression than CD20 (the target of Rituximab)

More individuals can be treated

CD20 positive and CD20 negative tumors

Rituximab resistant individuals

Cancer cells loose CD20, but not CD19, upon treatment with Rituximab



GBR 401

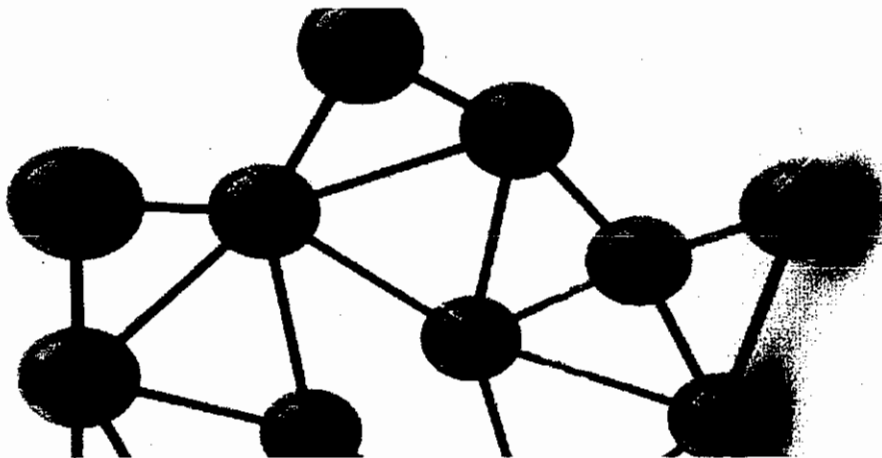
Indications

Initial focus oncology

- B cell tumors

Autoimmune diseases

- Deplete B lymphocytes that produce auto-immune antibodies





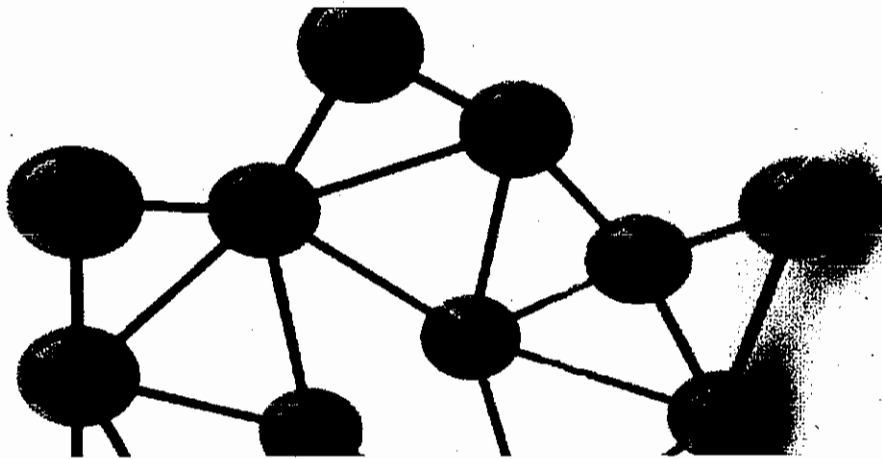
GBR401 Status

Monoclonal antibody directed against CD19, best in class potential

Re-engineered to enhance killing properties

Excellent results in animal models

IND enabling studies ongoing





Platform technologies

Basis for

Improved antibodies

New antibody formats

Examples

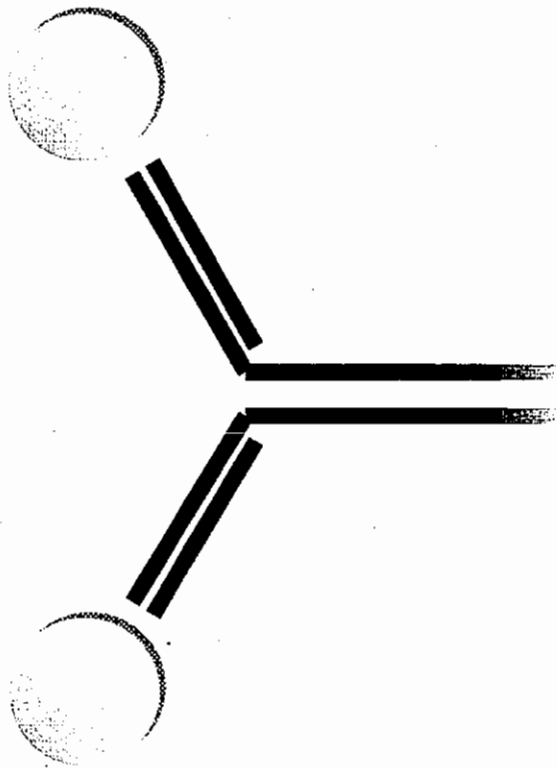
Improved killing properties of antibodies

Bi-specific antibodies

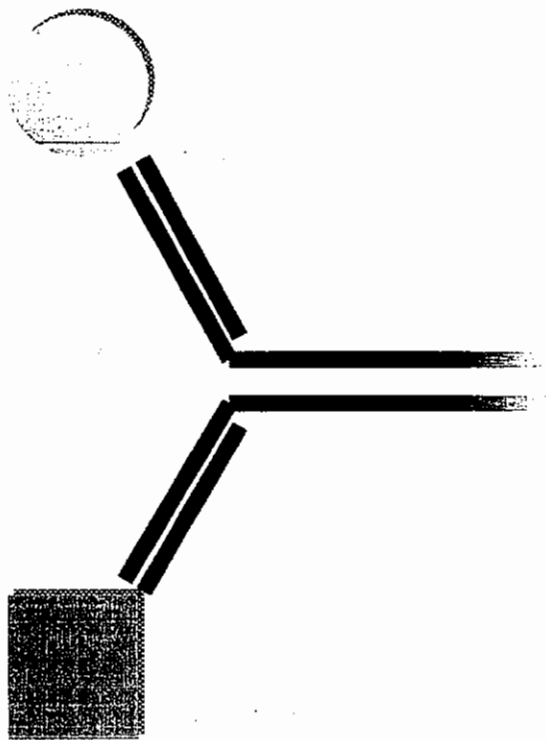
High-yield expression of antibodies



Bi-Specific Antibodies



Standard antibody (e.g. IgG):
Binds 2x to the same target



Bi-specific antibody:
Binds 1x to 2 different targets



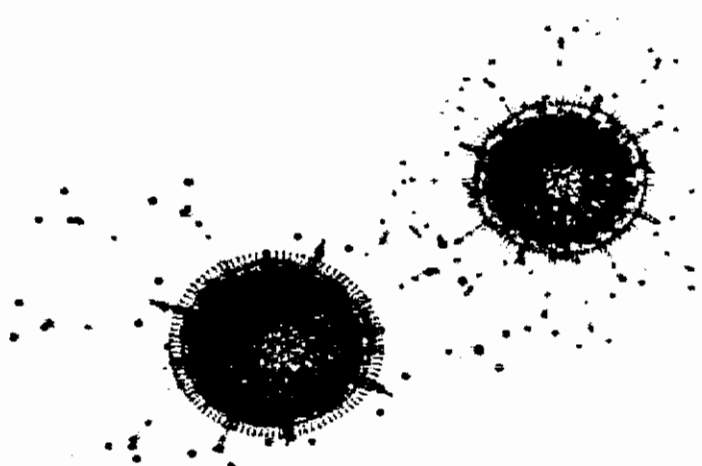
Why Bi-Specific Antibodies?

Highly specific multi-target drug
- E.g. oncology

Improve properties of antibody
- Enhanced killing or no killing

Improved therapy, more individuals can be treated

Unique format, better patent protection



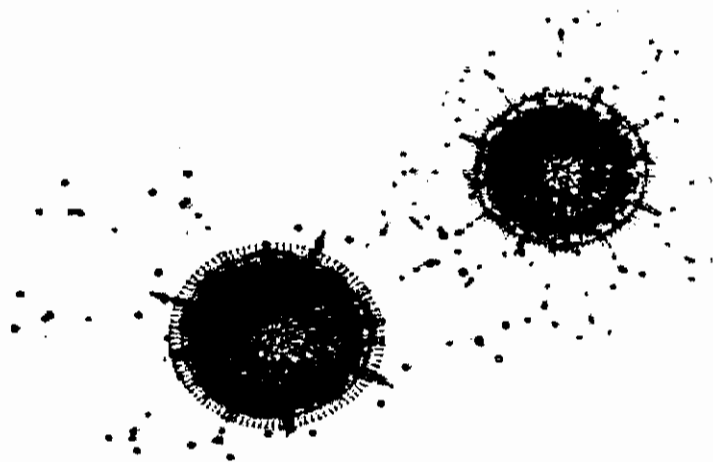


Glenmark Bi-Specific Antibody

Unique format
- Intellectual property

Very good assembly

Good purification





Thank
you

Zermatt/Wallis
MySkiZone.com



Thank
You!

