igm biosciences®

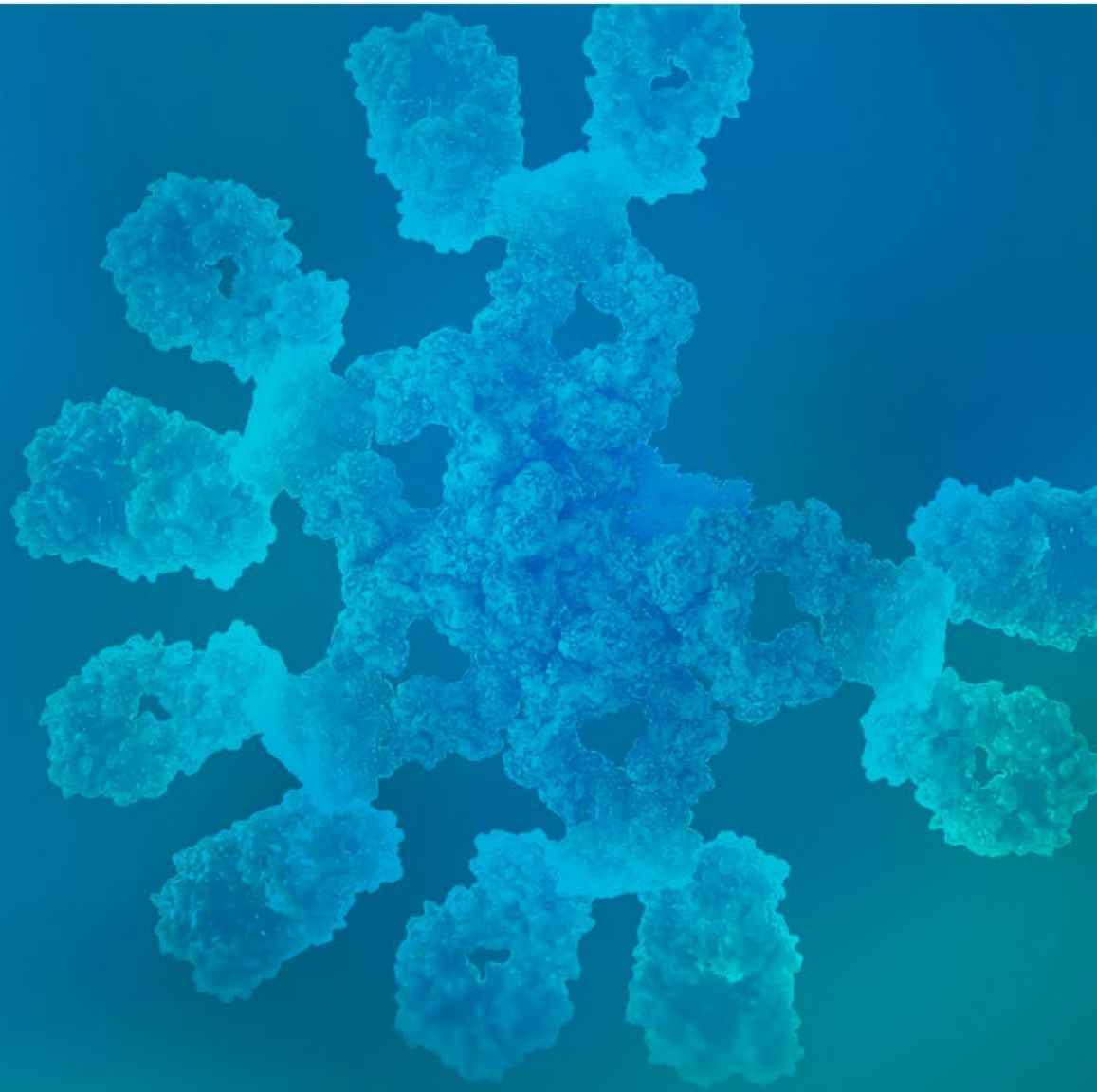
Global Leaders in IgM Antibodies

REIMAGINING

antibody medicines™

Corporate Overview

June 5, 2024



Forward-looking statements

This presentation contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements reflect the current views of the management of IGM Biosciences, Inc. (the “Company,” “we” or “our”) based on information available to us as of the date hereof. All statements other than statements of historical fact could be deemed forward-looking, including but not limited to statements regarding our future financial performance; our anticipated cash runway; plans, timelines, and expectations related to our our preclinical studies, clinical trials, discovery programs and collaboration activities; business plans, strategies, strategic priorities, catalysts and objectives; our ability to obtain regulatory approval; the potential therapeutic benefits and economic value of our product candidates; potential growth opportunities; and our competitive position, industry environment and potential market opportunities. In some cases, you can identify forward-looking statements by terms such as “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potentially” “predict,” “should,” “target,” “will” or the negative of these terms or other similar expressions. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things: plans, timelines, and expectations related to our preclinical studies, clinical trials and our discovery programs including regarding the availability of data, planned regulatory filings, the initiation and progress of current and future clinical trials; the risk of the occurrence of any event, change or other circumstance that could give rise to the termination of collaborations with third parties, including the agreement with Sanofi; our early stages of clinical drug development; our ability to achieve clinical goals; risks related to the use of engineered IgM antibodies; our ability to utilize our IgM antibody platform to generate and advance additional product candidates; our ability to advance product candidates into, and successfully complete, clinical trials; our ability to adequately demonstrate sufficient safety and efficacy and reduced toxicity, of our product candidates, either alone or in combination with other compounds; the potential for the results of clinical trials to differ from preclinical, preliminary, initial or expected results; the risk of significant adverse events, toxicities or other undesirable side effects; the timing or likelihood of regulatory filings and approvals; our estimates of the number of patients who suffer from the diseases we are targeting and the number of patients that may enroll in our clinical trials; the ability to commercialize our product candidates, if approved; our ability and the potential to successfully manufacture and supply our product candidates for clinical trials and for commercial use, if approved; our ability to accurately forecast future financial results and timelines; our anticipated use of our existing resources, our estimates regarding expenses, future revenue, capital requirements and needs for additional financing and our ability to obtain additional capital; the sufficiency of our existing cash and investments to fund our future operating expenses and capital expenditure requirements; our ability to attract and retain qualified personnel; the impact of our recent strategic refocusing and reduction in our workforce; the implementation of our business model and strategic plans; the scope of our intellectual property protections we are able to establish and maintain; our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately; developments relating to our competitors and our industry, including competing product candidates and therapies; any potential delays or disruptions resulting from catastrophic events, including epidemics or other outbreaks of infectious diseases; general economic and market conditions including inflation; and other risks described in our public filings with the Securities and Exchange Commission (SEC), including our most recent Quarterly Report on Form 10-Q filed on May 8, 2024. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Additionally, statements that “we believe” and similar statements reflect our management’s beliefs and opinions on the relevant subject. These forward-looking statements are based on information available to us as of the date hereof, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and readers are cautioned not to unduly rely upon these statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason.

This presentation includes information on drug candidates that are under clinical investigation, and which have not yet been approved for marketing by the U.S. Food and Drug Administration. The drug candidates are currently limited by federal law to investigational use, and no representation is made as to their safety or effectiveness for the purposes for which they are being investigated.

IGM Biosciences overview

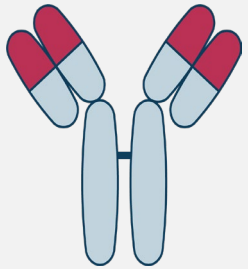
- Global leaders in the development of IgM antibodies
- Wholly-owned, clinical-stage pipeline of medicines in:
  - Oncology
  - Autoimmune and inflammatory diseases
- Worldwide collaboration agreement with Sanofi to develop IgM agonist antibodies against three immunology and inflammation targets
- Cash and investments of approximately $294 million as of March 31, 2024; expected runway into the second quarter of 2026

IgM antibodies have unique structural attributes compared to IgG antibodies

10 binding sites (red) versus 2:

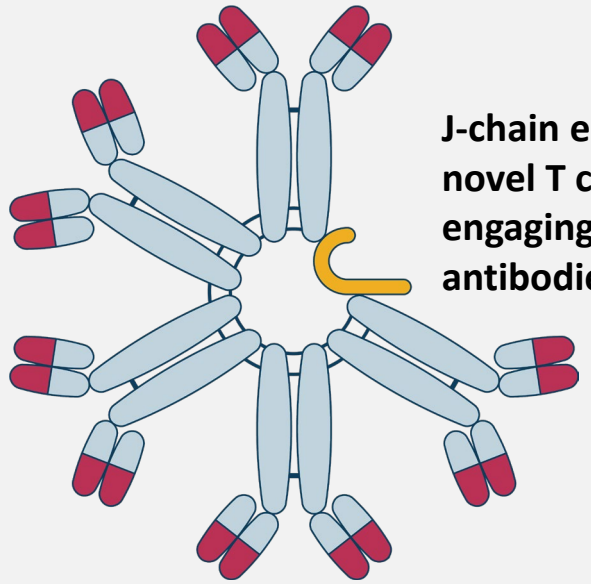
- Superior total binding power (avidity)
- Stronger intracellular signaling (agonism) created by binding more targets together (cross-linking) with one antibody

IgG



2 BINDING SITES

IgM



10 BINDING SITES

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IGM pipeline

PROGRAM	INDICATION	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3
Agonist IgM antibodies						
Aplitabart (DR5)	Colorectal cancer (CRC)			▶		
T Cell Engaging IgM antibodies						
Imvotamab (CD20 x CD3)	Systemic Lupus Erythematosus (SLE)			▶		
	Rheumatoid Arthritis (RA)			▶		
	Myositis			▶		
IGM-2644 (CD38 x CD3)	Autoimmune Diseases			▶		
Partnered: 3 Agonist Immunology & Inflammation Targets						
sanofi	Undisclosed			▶		

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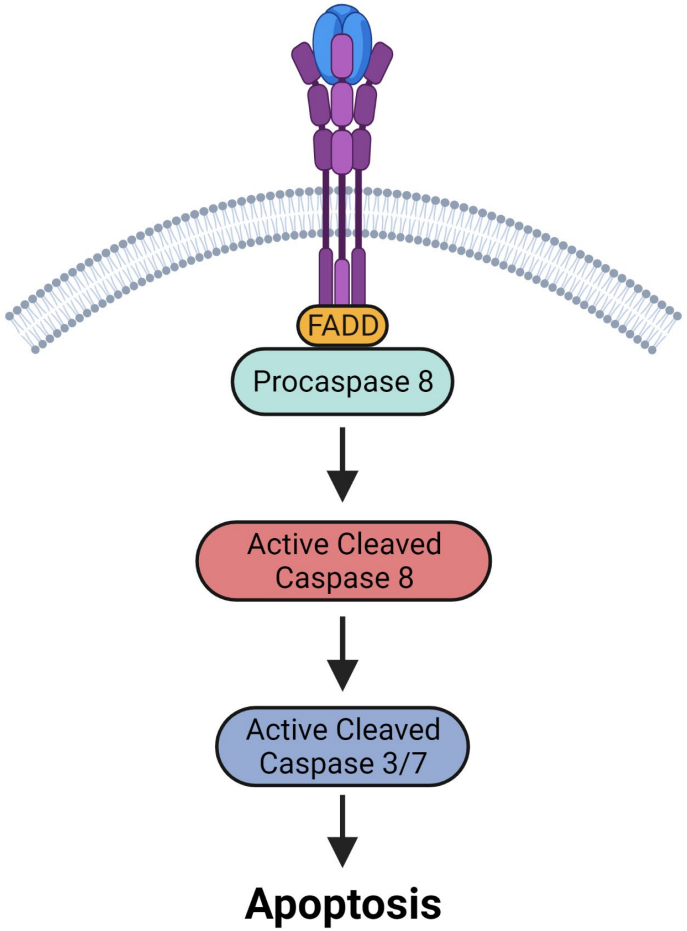
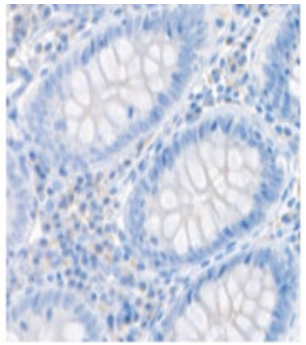
Death receptor 5 (DR5) signal tells cancer cells to die (apoptosis)

DR5 is on the surface of multiple types of cancer cells

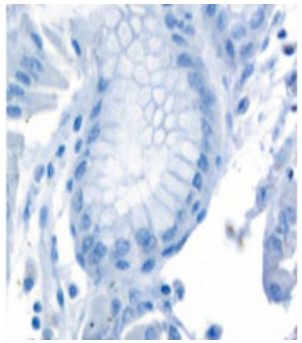


DR5 Stained Normal Tissues

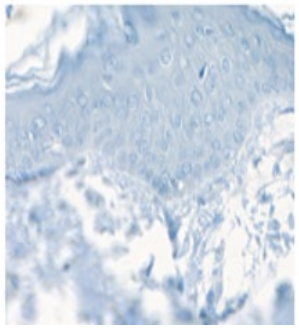
Colon



Stomach

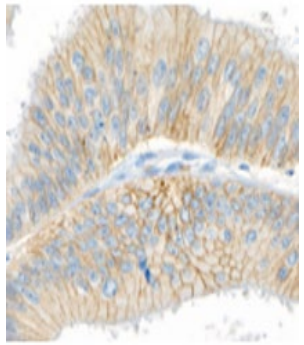


Skin

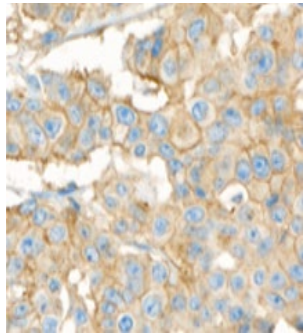


DR5 Stained Tumor Samples

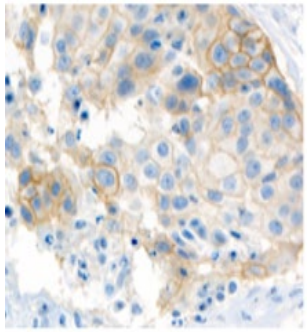
Colon Adenocarcinoma



Gastric Adenocarcinoma



Squamous Cell Carcinoma



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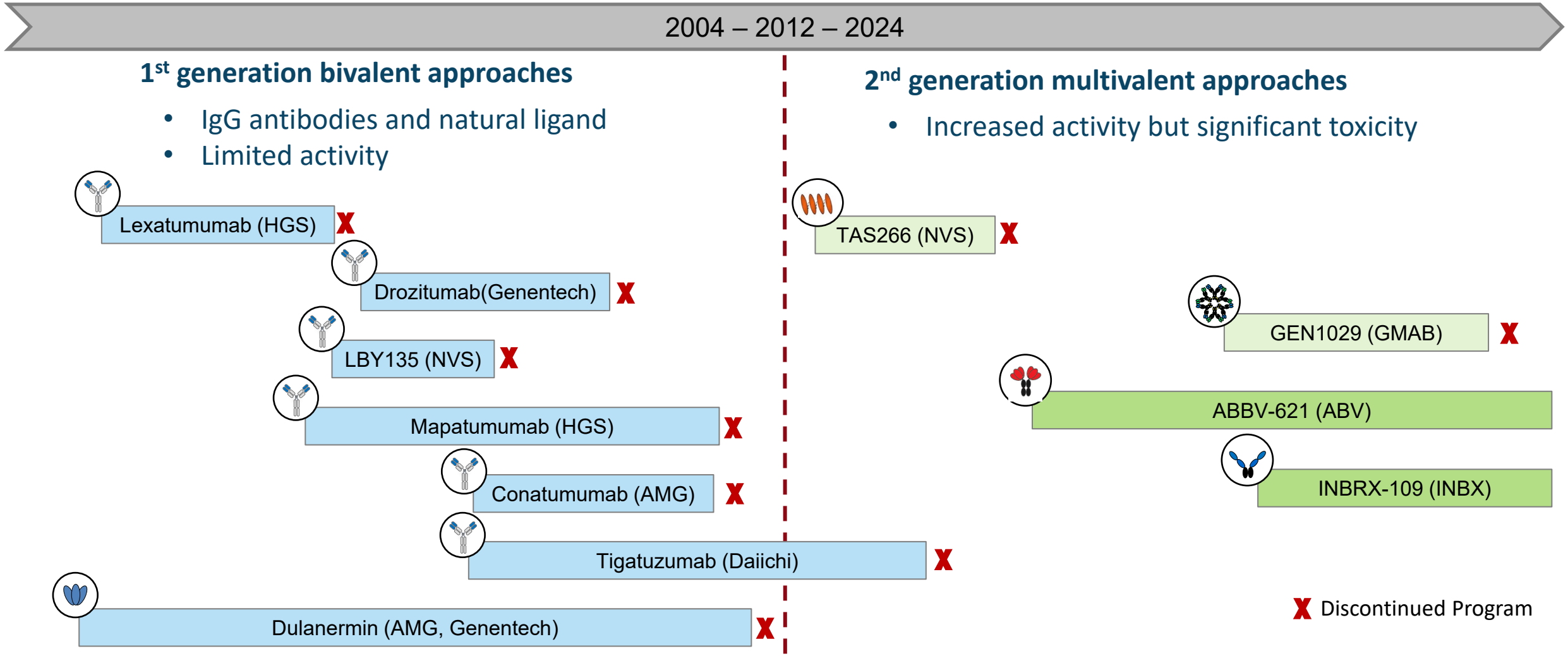
Death receptor 5 has been a cancer drug target for 20 years

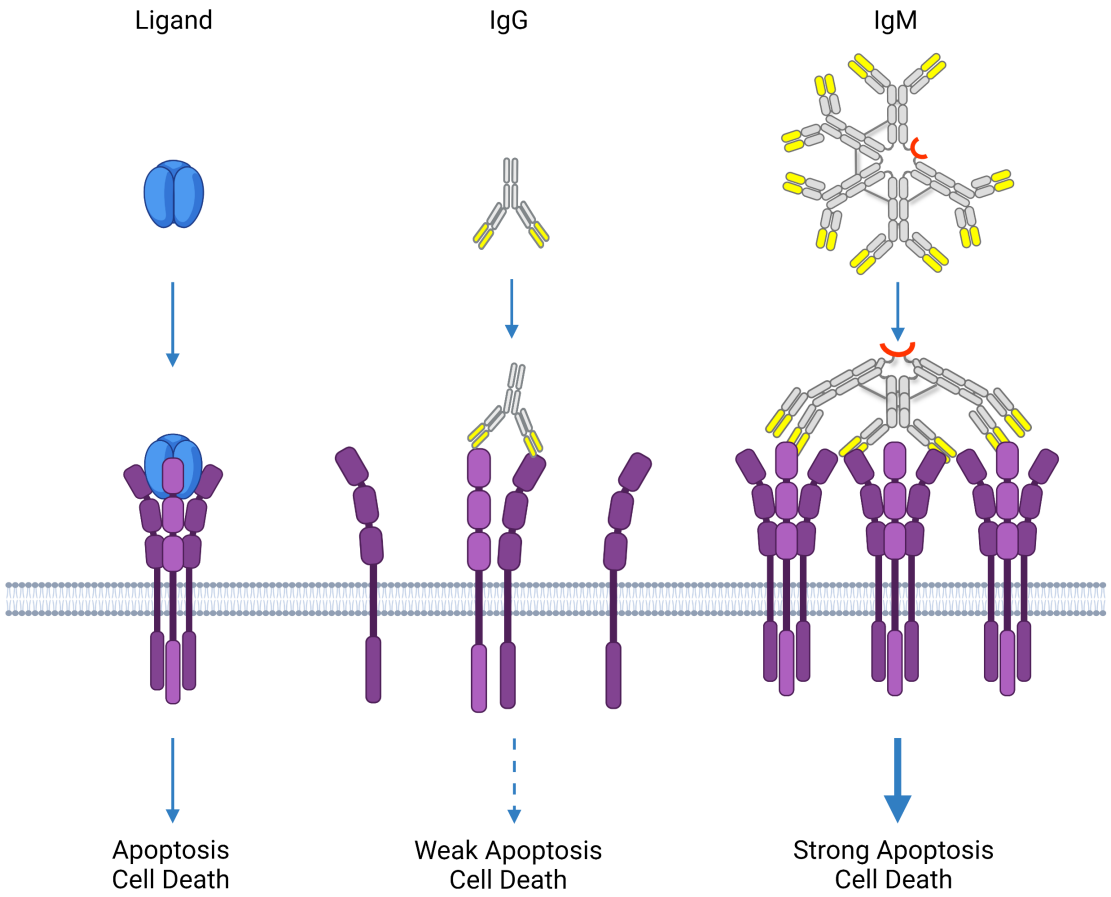
Limited activity and liver cell toxicity have led to numerous failures



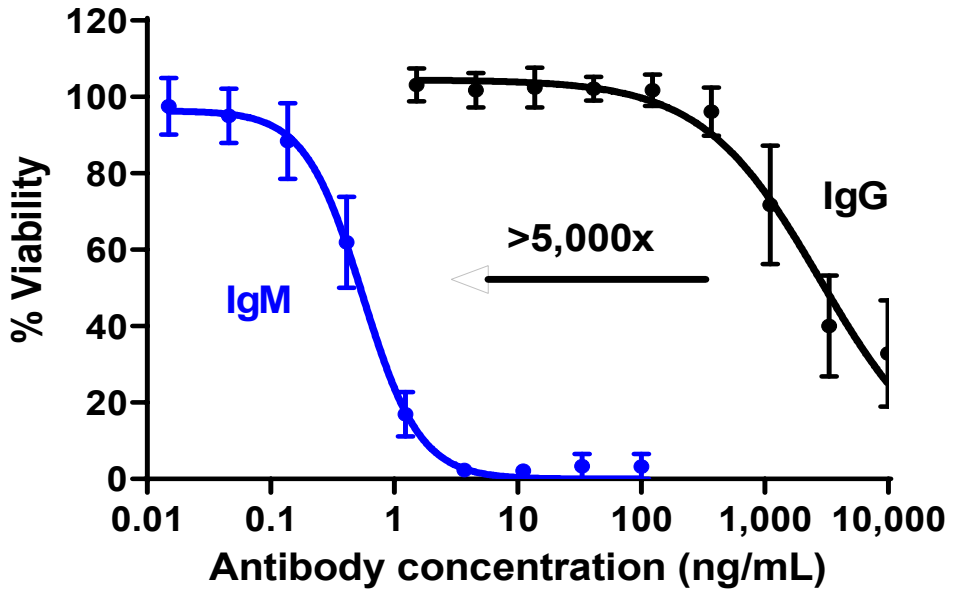
Source: Snajdauf et al., *Frontiers in Molecular Biosciences*, March 2021; Oncology Pipeline accessed May 2023

IgM antibodies can more effectively bind death receptor 5

Potentially leading to increased death signaling and potency

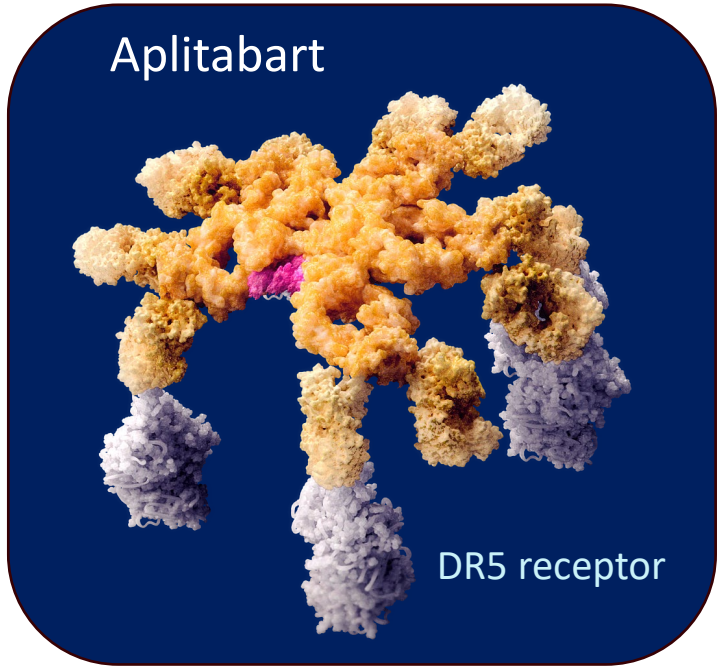


In vitro killing comparing IgG and IgM DR5 antibodies using the same binding domains

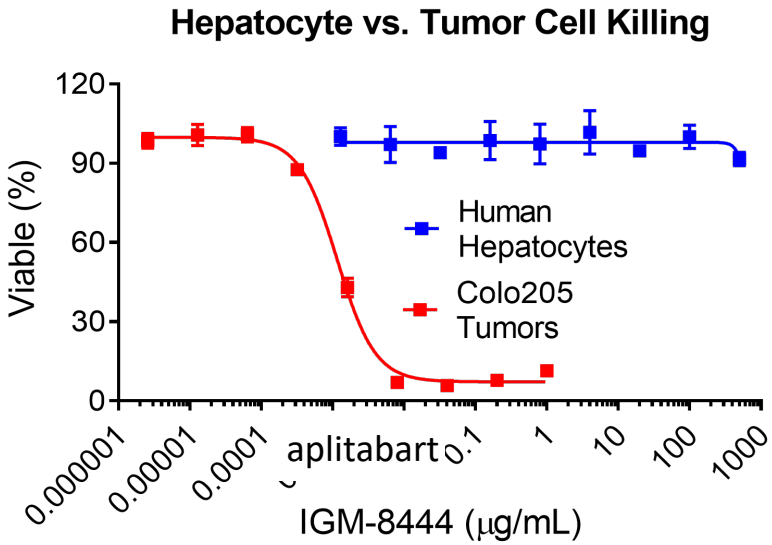


Aplitabart: an IgM antibody that binds death receptor 5

Designed for liver cell (hepatocyte) safety



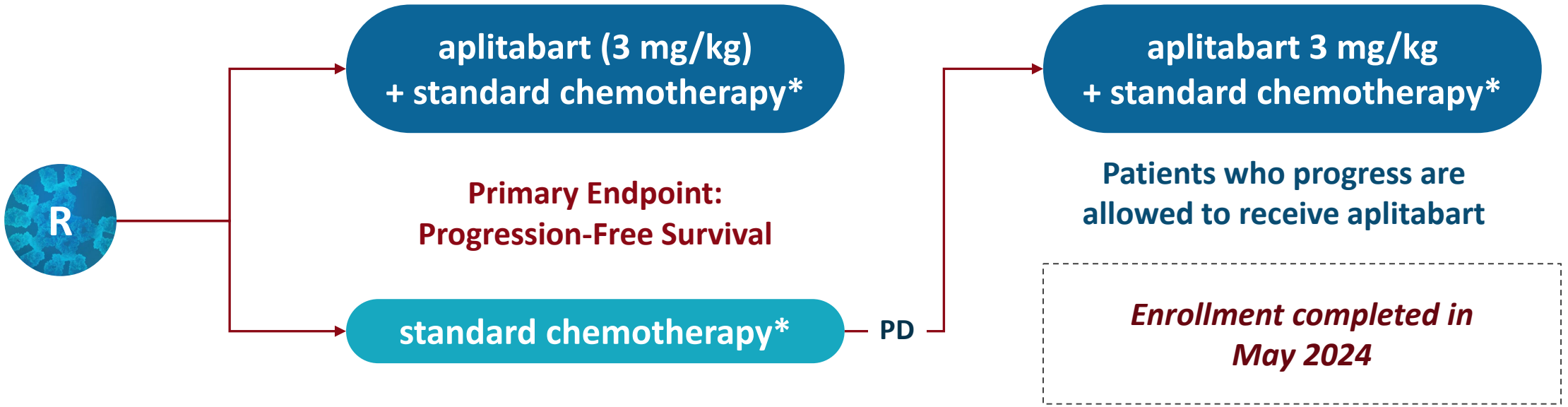
IgM structure enables cross linking of DR5 receptors creating stronger death signal



- Potent *in vitro* killing of tumor cells
- Preclinical assays showed no toxicity to hepatocytes

Ongoing randomized colorectal cancer clinical trial

Designed to show the benefit of aplitabart



Population

- Colorectal cancer patients who have failed one prior line of therapy
- United States, Europe and Asia

Trial Design

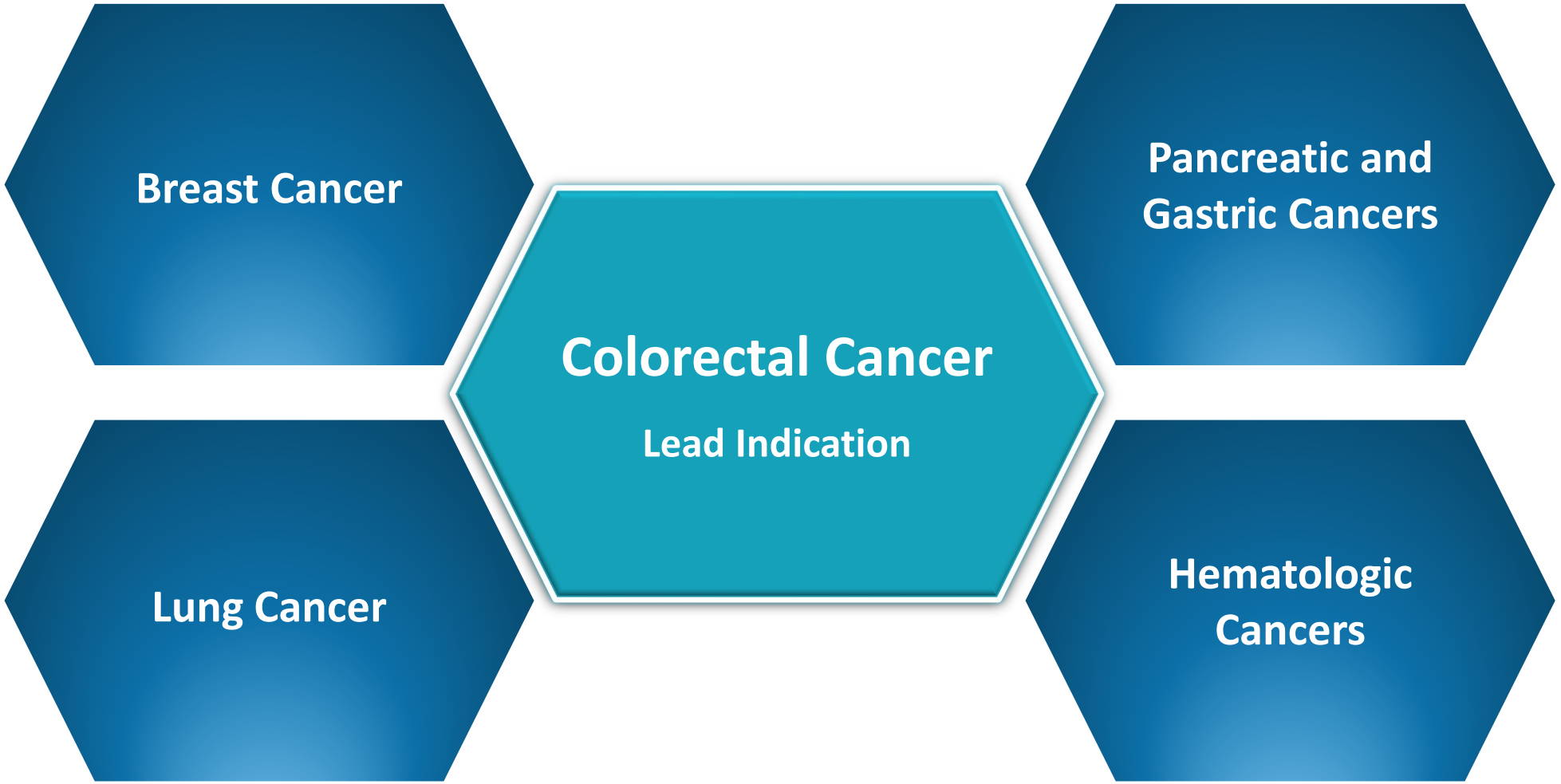
- 127 patients enrolled, exceeding trial design target of 110 patients
- Randomized 1:1 between groups
- Primary endpoint: progression-free survival

Standard chemotherapy*

- Expected median progression-free survival of approximately 6 months

*FOLFIRI plus bevacizumab

Other possible DR5 development opportunities



IgM-based T cell engagers in autoimmunity

Potential to treat autoimmune diseases via deep B cell depletion

B cells play a critical role in many autoimmune diseases

Limitations facing traditional IgG monoclonal antibodies

- Poor depletion of tissue-resident B cells
- Poor depletion of low target expressing cells

IgM T cell engagers

- T cell engagement can enable deep tissue depletion
- High avidity enables depletion of low target expressing cells

A safe, effective and accessible approach to utilize T cells to drive deep B cell depletion could address a broad range of B cell mediated autoimmune diseases

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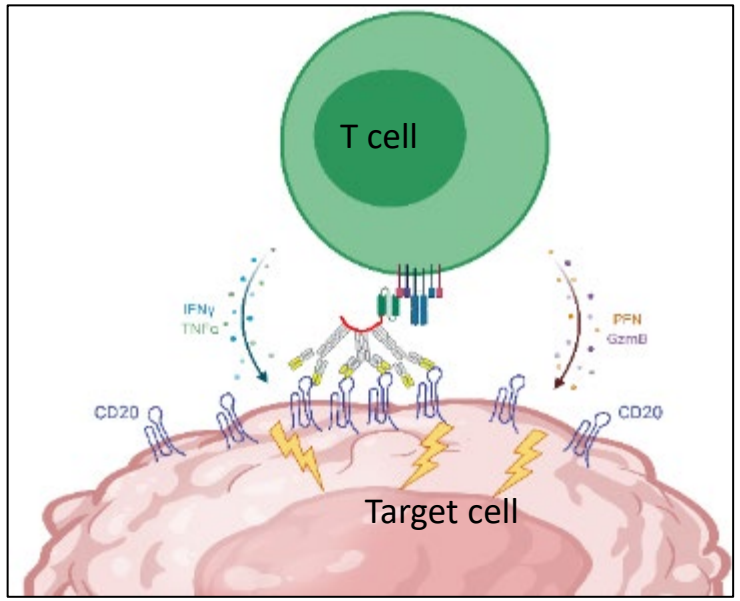
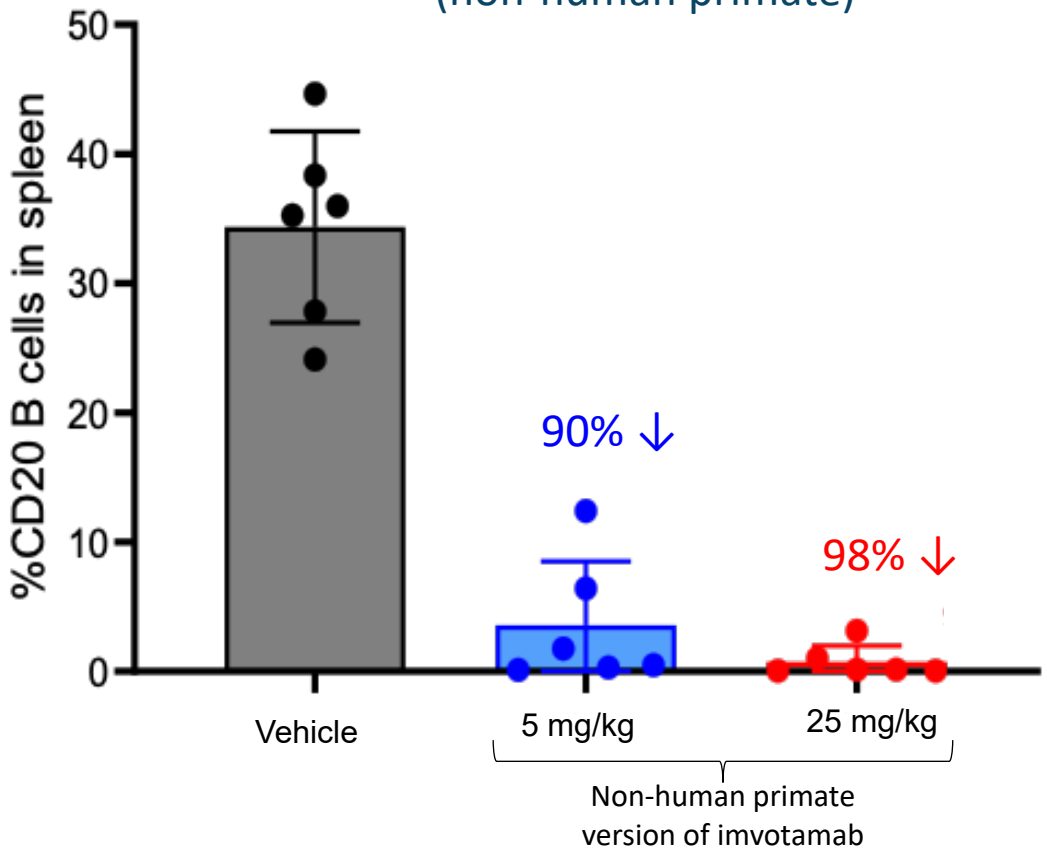
IgM T cell engaging antibodies can deplete tissue resident B cells

IgM-based bispecific T cell engaging antibodies do not require local availability of natural killer cells, unlike traditional non-bispecific IgG antibodies



Deep depletion of CD20+ cells within spleen tissue (non-human primate)*

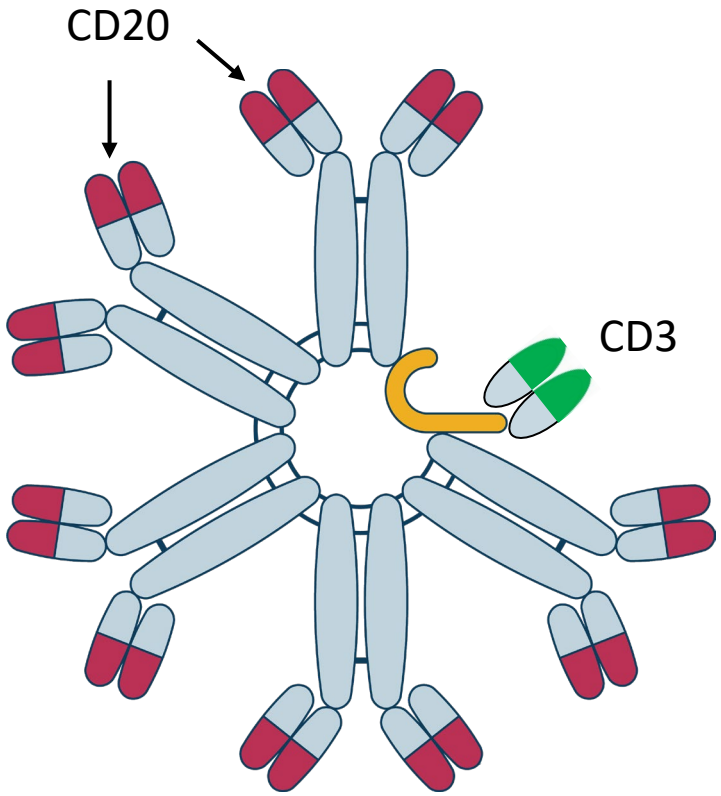


*2023 American College of Rheumatology (ACR) Convergence Poster #0583, "Therapeutic Potential of Imvotamab, a CD20-Targeted Bispecific IgM T Cell Engager, for the Treatment of Refractory Autoimmune Disease Patients"

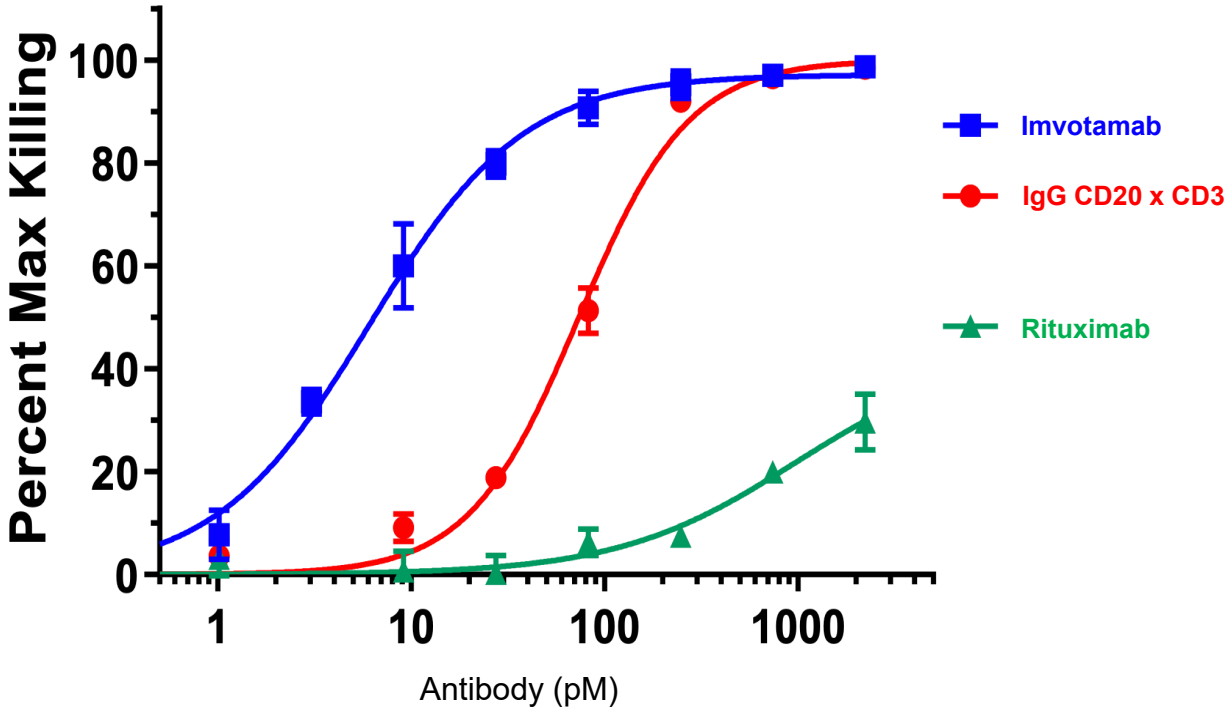
IgM T cell engaging antibodies in autoimmunity

High avidity enables depletion of low CD20 expressing cells

10 high affinity binding units generate high avidity



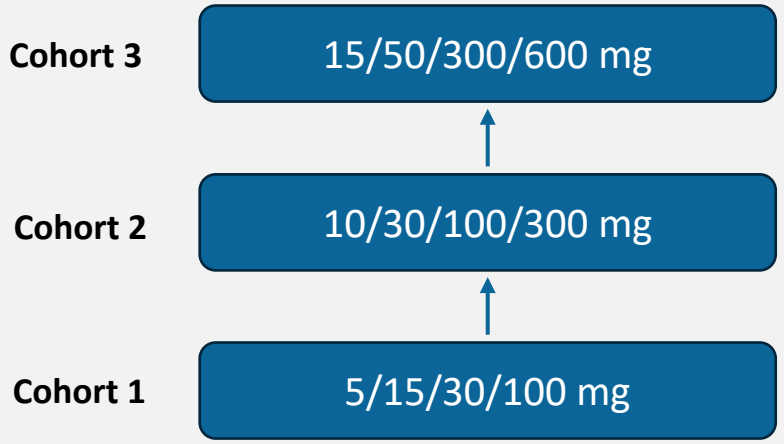
Killing of low CD20 expressing cells (in vitro)



Ongoing imvotamab Phase 1b clinical trials
Potential for deep B cell depletion

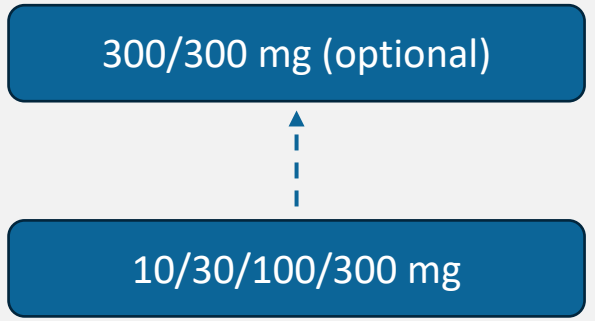
SLE and RA

- 4 weekly escalating doses of imvotamab
- 52-week follow-up
- ***Systemic Lupus Erythematosis (SLE)***
  - Single arm, open label (N = 18)
  - Actively enrolling
- ***Rheumatoid Arthritis (RA)***
  - Placebo controlled, double blinded (N = 24)
  - Actively enrolling



Idiopathic Inflammatory Myopathies (Myositis)

- 4 weekly escalating doses of imvotamab; 2 additional doses optional
- 52-week follow-up
- Single arm, open label (N = 5-10)
- In process of initiating



Imvotamab in non-Hodgkin's Lymphoma

Clinical evidence of B cell depletion in tissue and favorable safety profile

Favorable Efficacy Signals

Complete responses achieved in four major types of non-Hodgkin's Lymphoma

Imvotamab clinically demonstrated the ability to effectively deplete B cells, even rapidly growing lymphoma cells

Favorable Safety Signals

Controlled physiologic stimulation of T cells resulted in relatively low levels of cytokine release syndrome (CRS)

No reports of immune effector cell-associated neurotoxicity syndrome

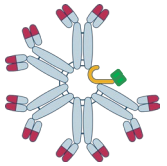
Imvotamab has shown an advantageous safety profile as compared to current IgG CD20 x CD3 T cell engagers

Portfolio of IgM T cell engagers

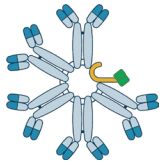
Opportunity with different targets to deplete different types of B cells

Broad Platform of Molecules

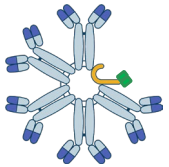
Imvotamab
CD20 x CD3



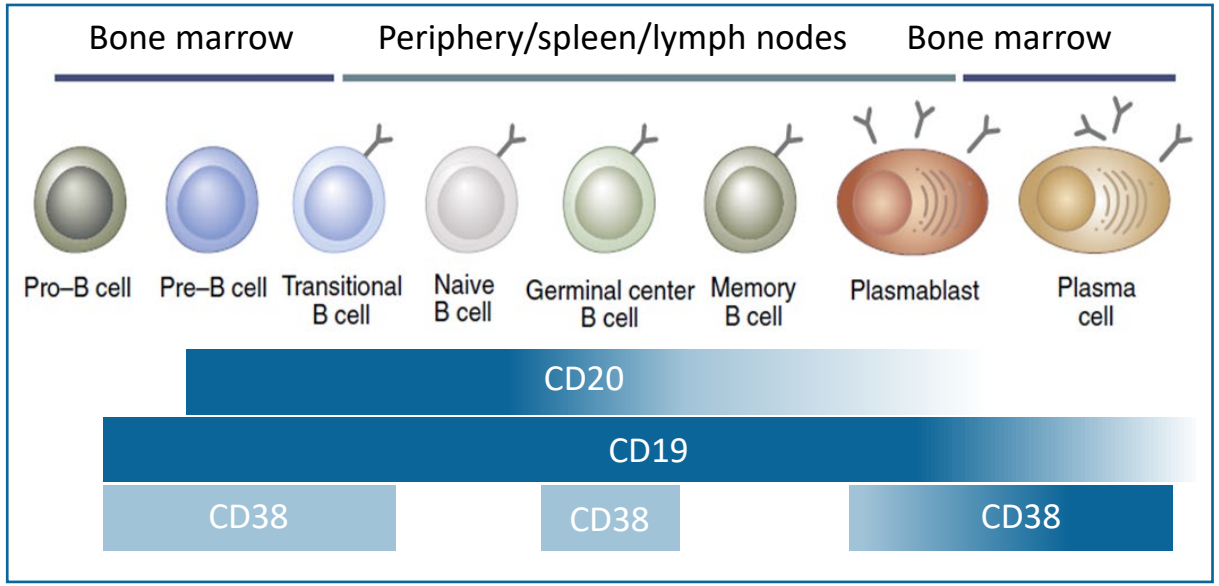
IGM-2644
CD38 x CD3



Other
(e.g., CD19 x CD3)



Target Expression across B Cell Types



Broad range of autoimmune diseases may benefit from deeper B cell depletion

Multiple Sclerosis

Myasthenia Gravis

Neuromyelitis Optica

Demyelinating Polyneuropathy

Rheumatoid Arthritis

Systemic Lupus Erythematosus

Sjogren's

Myositis

Lupus nephritis

IgA nephropathy

ANCA vasculitis

Idiopathic thrombocytopenia purpura

Autoimmune Hemolytic Anemia

Anti-phospholipid Syndrome

Pemphigus Vulgaris

Alopecia Areata

Lee, D.S.W. et al, *Nat Rev Drug Discov* 2021

Sanofi/IGM multi-target collaboration agreement

Global research collaboration to leverage proprietary IgM antibody technology platform to create, develop and potentially commercialize agonists against three autoimmunity and inflammation targets

Financial Terms

- $150M upfront payment from Sanofi received
- Equity investment in April 2022 follow-on public offering
- Potentially $3B+ in preclinical, clinical, regulatory and commercial milestone payments

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