Mirum Pharmaceuticals:
Transforming Lives in Rare Disease

Mirum to Acquire Bluejay Therapeutics

December 2025

Forward-Looking Statements

This presentation contains "forward-looking" statements that are based on our management's beliefs and assumptions and on information currently available to management. Forward-looking statements include all statements other than statements of historical fact contained in this presentation, including information concerning our potential acquisition of Bluejay Therapeutics ("Bluejay"), our business strategy, objectives and opportunities, including the future opportunities and clinical and regulatory milestones for LIVMARLI, CHOLBAM, CTEXLI or Chenodiol, our product candidates and the product candidates that we may acquire if the acquisition of Bluejay is completed. Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause our actual results, performance or achievements to differ materially and adversely from those anticipated or implied by our forward-looking statements, including, but not limited to: the failure of our acquisition of Bluejay to be completed for any reason; the results, enrollment, conduct and progress of Bluejay's ongoing studies for its product candidates; the results, enrollment, conduct and progress of our ongoing and planned studies for our product candidates, including newly in-licensed product candidates, and our plans and expectations for commercializing LIVMARLI, CHOLBAM and CTEXLI in the United States and rest of world; the costs of our business strategy, commercialization plans and development programs, the financial impact or revenues from any commercialization we undertake; estimates of the number of patients impacted by the diseases or related diseases that we seek or Bluejay has sought to treat and who are appropriate for treatment with our commercial products; the potential clinical benefits of LIVMARLI, CHOLBAM and CTEXLI (or chenodiol tablets under other brand names) and any of our product candidates, including volixibat and MRM-3379; our expected growth, including the potential integration of Bluejay and its operations if the acquisition is completed; our ability to obtain necessary regulatory approvals for our and Bluejay's product candidates or predictions of the outcome of any regulatory consideration and, if and when approved, market acceptance of our products; our dependence on third-party clinical research organizations, manufacturers, suppliers and distributors; the design, implementation, timelines and outcomes of our clinical trials; the impact of competitive products and therapies; our ability to obtain necessary additional capital; our ability to attract and retain key employees; our ability to manage the growth and complexity of our organization; our ability to maintain, protect and enhance our intellectual property; and our ability to continue to stay in compliance with applicable laws and regulations. You should refer to the section entitled "Risk Factors" set forth in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and other filings we make with the Securities and Exchange Commission (SEC) from time to time (available at http://www.sec.gov) for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update any forward-looking statements after the date of this presentation except as may be required by law.

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This presentation discusses product candidates that are under clinical study and which have not yet been approved for marketing by the U.S. Food and Drug Administration or other relevant regulatory authorities. No representation is made as to the safety or effectiveness of these product candidates for the use for which such product candidates are being studies.

This presentation shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any states or jurisdictions in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction or an exemption therefrom.

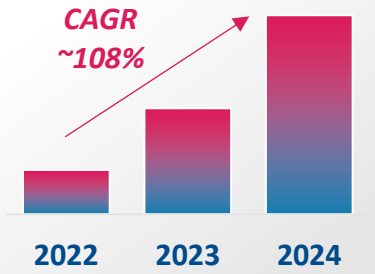
Mirum: Delivering Growth and Patient Impact in Rare Disease

mirum + *Proposed Acquisition of Bluejay Therapeutics*[1]

4

Potentially Registrational Topline Readouts Expected in Next 18 months[2]

vistas AZURE EXPAND VANTAGE



Unlocking Significant Value for Patients[3]

4 FDA Breakthrough Designations[4]

$4B+

Peak Revenue Potential of Mirum Portfolio[5]

Operationally Efficient

>50%

Commercial Margins[6]

Disciplined Execution

Financially Independent $378M

Cash, Cash Equivalents and Investments[6]

Developing and Delivering High Impact Medicines for Patients with Rare Disease

[1] Assuming closing of proposed acquisition of Bluejay Therapeutics, expected in Q1 2026, subject to customary closing conditions
[2] Includes Mirum's existing product candidates and, for illustrative purposes, includes brelovitug, assuming closing of proposed acquisition
[3] Annual Net Product Sales 2022-2024
[4] Includes designations for Mirum's existing products and product candidates as well as brelovitug (for illustrative purposes) assuming the completion of the proposed acquisition
[5] Mirum estimates of peak revenue potential, includes brelovitug for illustrative purposes assuming completion of proposed acquisition
[6] Mirum Pharmaceuticals Inc. Q3 2025 10-Q; Commercial Margin = Revenue less (Cost of Sales + Comm and Medical Affairs expenses) / Revenue

Mirum: Bluejay Therapeutics Acquisition Opportunity

Advances Leadership in Rare Liver Disease

Hepatitis Delta Virus
Large orphan setting
No approved therapies in the US

Anticipated to be highly synergistic with Mirum's expertise in rare liver disease

$750M+

Est. Brelovitug HDV Revenue Potential

Brelovitug
P3 Expected Topline H2 '26
Anticipated BLA Submission & Launch '27
IP 2041 + PTE

FDA Breakthrough Designation based on Phase 2 Data
100% achieved virologic response
65-82% achieved composite endpoint[1]

Acquisition Deal Terms

$250M Cash | $370M Stock[2]
+Up to $200M Tiered Sales Milestones

Mirum remains financially independent

Private placement of $200M[3]

[1] Agarwal et al, AASLD 2025; Composite endpoint = Virologic response (HDV RNA ≥2 log reduction or TND) and ALT normalization
[2] Issued at $71.21 per share
[3] To be funded at closing at a price of $68.48 per share

Commercial Portfolio with Pipeline of Growth Opportunities

3 APPROVED RARE DISEASE MEDICINES, 5 ADDITIONAL INDICATIONS IN DEVELOPMENT IN HIGH-NEED ORPHAN INDICATIONS

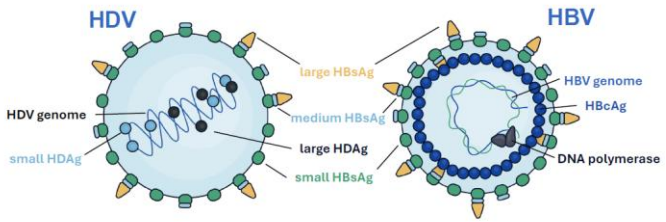
	Indication	Preclinical / Phase 1 / Phase 2 and Phase 3 / Approved
Livmarli® (maralixibat)	Alagille Syndrome (ALGS)[1]	FDA and EMA approved
	Progressive Familial Intrahepatic Cholestasis (PFIC)[2]	FDA and EMA approved
	Cholestatic Pruritus (Additional Settings)[3]	EXPAND Phase 3, expect enrollment completion 2026
Ctexli® (chenodiol) tablets 250mg	Cerebrotendinous Xanthomatosis (CTX)[4]	FDA approved
Cholbam® (cholic acid) capsules	Bile Acid Synthesis Disorders (BASD)[5]	FDA approved
volixibat	Primary Sclerosing Cholangitis (PSC)	VISTAS Phase 2b positive interim analysis, confirmatory topline data expected Q2 2026
	Primary Biliary Cholangitis (PBC)	VANTAGE Phase 2b positive interim analysis, expect enrollment completion 2026; *Granted FDA Breakthrough Therapy Designation*
MRM-3379	Fragile X Syndrome (FXS)	Phase 2, initiated Q4 2025
Bluejay Therapeutics brelovitug[6]	Hepatitis Delta Virus (HDV)	AZURE 1 & 4, Phase 3 topline data expected H2 2026 (US registrational program); AZURE 2 & 3, Phase 3 topline data expected H1 2028 (EU registrational program); *Granted FDA Breakthrough Therapy and EMA PRIME Designations*

[1]Received U.S. FDA approval for cholestatic pruritus in patients with Alagille syndrome 3 months of age and older. European Commission has granted marketing authorization for LIVMARLI® (maralixibat) oral solution for the treatment of cholestatic pruritus in patients with Alagille syndrome 2 months of age and older
[2] Received U.S. FDA approval for cholestatic pruritus in patients with PFIC 12 months of age and older. European Commission has granted marketing authorization for LIVMARLI® (maralixibat) oral solution for the treatment of PFIC in patients 3 months of age and older
[3]Using liquid oral formulation for the EXPAND study looking at patients with additional settings of ultra rare cholestatic pruritus, excluding PSC, PBC, ICP, ALGS and PFIC
[4] Received U.S. FDA approval for the treatment of adults with cerebrotendinous xanthomatosis (CTX)
[5]Bile acid synthesis disorders include Peroxisome biogenesis disorder-Zellweger Spectrum Disorder (PBD-ZSD)
[6]For illustrative purposes, assuming closing of proposed acquisition, which remains subject to customary closing conditions

HDV Is The Most Severe Form Of Viral Hepatitis

No Approved Therapies in the US

Hepatitis Delta Virus



Requires Hepatitis B coinfection

Hepatitis B Surface Antigen (HBsAg) necessary for HDV to replicate and spread

>50%

Liver-Related **Death in 10 Years**[1]

5yrs

Avg. Progression to **Cirrhosis** and **Liver Failure**[2]

3x

Risk of **Liver Cancer (HCC)** vs. HBV[3]

~15,000

US pts diagnosed, insured, under care[4]

~40,000 Est. US Prevalence

>230,000 prevalence US/EU, >12M WW

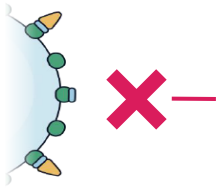
A significant global unmet need

[1]Negro, F. & Lok, A. S JAMA 2023
[2]Miao et al, The Journal of Infectious Diseases 2019
[3]Sagnelli, C. *et al.* HBV/HDV Co-Infection: Epidemiological and Clinical Changes, Recent Knowledge and Future Challenges. *Life* **11**, 169 (2021).
[4]Mirum estimates

Brelovitug: Preliminary Efficacy and Favorable Safety Profile in HDV

Brelovitug

Fully human anti-HBsAg monoclonal antibody
SC injection 1x Weekly or 1x Monthly

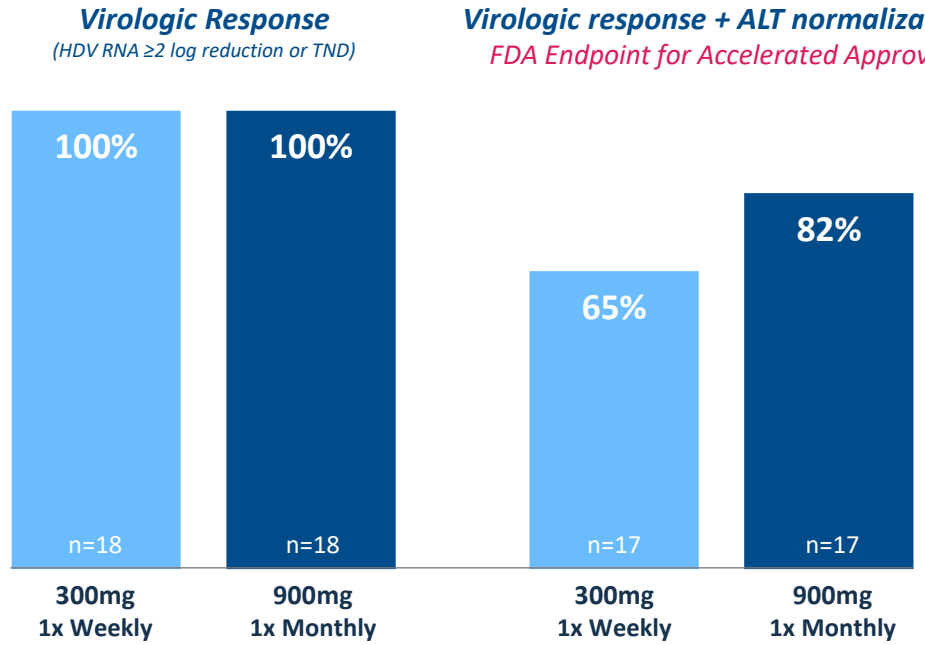


Binds to HBsAg
Neutralizes HDV/HBV
Clears virions & subviral particles

100% Virologic Response
Demonstrated in P2 Clinical Trial

Phase 2 Study Results

High rate of virologic response and ALT normalization at 48wks[1]



Safety: Parallel ALT reductions; Low rates of flulike symptoms,
No >grade 2 AEs, no SAEs, no discontinuations due to AEs

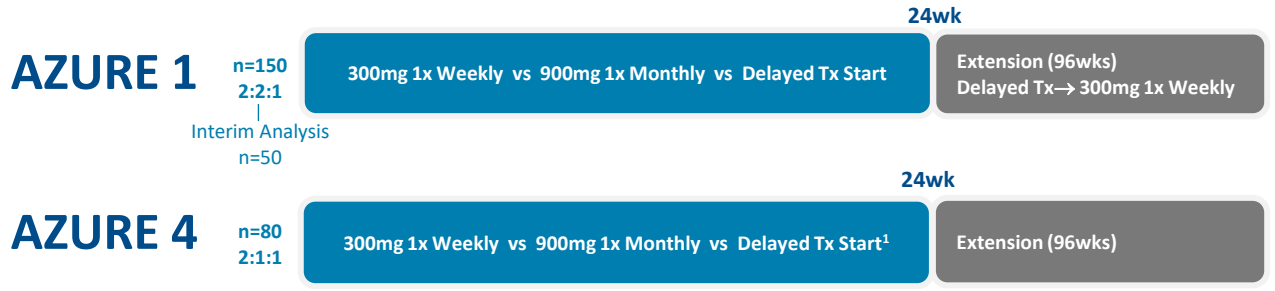
Granted FDA Breakthrough & EU PRIME Designations

[1] Agarwal et al, AASLD 2025

Brelovitug: Ongoing Phase 3 Trials Supporting FDA and EMA Filings

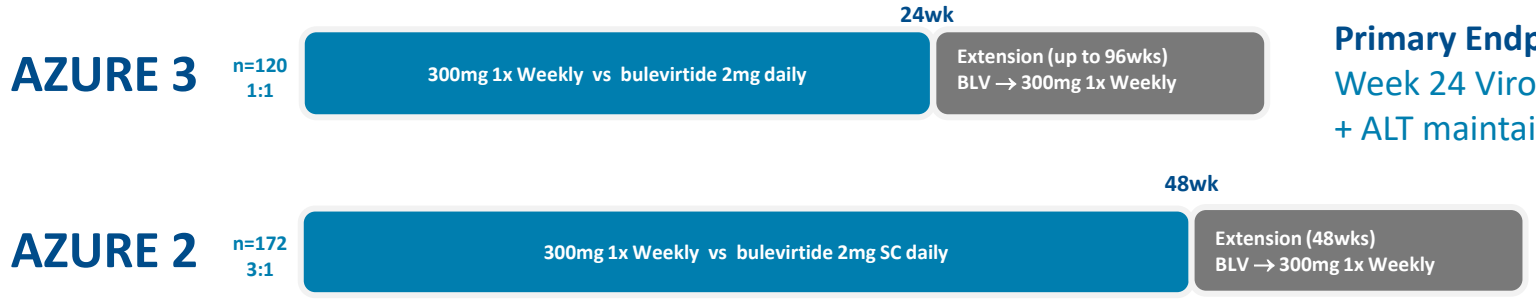
All Studies Enrolling

FDA Registration Enabling Studies
Topline Data Expected H2 2026



Primary Endpoint
Week 24 Virologic Response[2]
+ ALT normalization

Supporting safety and efficacy (EMA)



Primary Endpoint
Week 24 Virologic Response[2]
+ ALT maintained or improved

Primary Endpoint
Week 48 TND +
ALT normalization

[1] Patients in delayed Tx start arm switch to 300mg 1x Weekly at week 12
[2] Virologic Response = HDV RNA ≥2 log reduction or TND

Well-Positioned to Execute on Our Planned Strategy

4 potentially registrational topline readouts expected in the next 18 months[1]

2025 FY Guidance

$500-510M

2025 Net Product Sales Guidance

Cash flow positive

2026

- ★ **VISTAS (PSC) topline results in Q2**
- AZURE-1 (HDV) Interim Analysis in Q2[2]
- EXPAND complete enrollment
- VANTAGE (PBC) complete enrollment
- Volixibat PSC NDA in H2
- ★ **AZURE-1 & 4 (HDV) topline results in H2[2]**

2027

- Volixibat PSC Approval/Launch in H1
- ★ **EXPAND topline results in H1**
- ★ **VANTAGE (PBC) topline results in H1**
- Brelovitug HDV BLA Submission H1[2]
- Brelovitug HDV Approval & Launch H2[2]
- BLOOM (FXS) study topline results

[1] Includes Mirum's existing product candidates and, for illustrative purposes, assumes closing of proposed acquisition, which remains subject to customary closing conditions
[2] For illustrative purposes, assuming closing of proposed acquisition

Thank You