UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): March 4, 2020

MORPHIC HOLDING, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation)

Delaware	**001-38940**	**47-3878772**
(State or other jurisdiction of incorporation or organization)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

35 Gatehouse Drive, A2 **Waltham, MA** **(Address of principal executive offices)**	**02451** **(Zip Code)**

(781) 996-0955
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, $0.0001 par value per share	MORF	Nasdaq Global Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR 230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR 240.12b-2).

Emerging growth company ☒

If an emerging grown company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 8.01 Other Events.

Morphic Holding, Inc. presented the investor presentation attached hereto as Exhibit 99.1 at the Cowen Healthcare Conference on March 4, 2020.

Item 9.01 Financial Statements and Exhibits.

d) Exhibits

Exhibit Number	Description
99.1	Morphic Investor Presentation

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: March 4, 2020

MORPHIC HOLDING, INC.

By: /s/ Robert E. Farrell, Jr.
Robert E. Farrell, Jr.
Senior Vice President of Finance and Chief Accounting Officer

Exhibit 99.1

MORPHIC THERAPEUTIC

DELIVERING A NEW GENERATION OF INTEGRIN MEDICINES

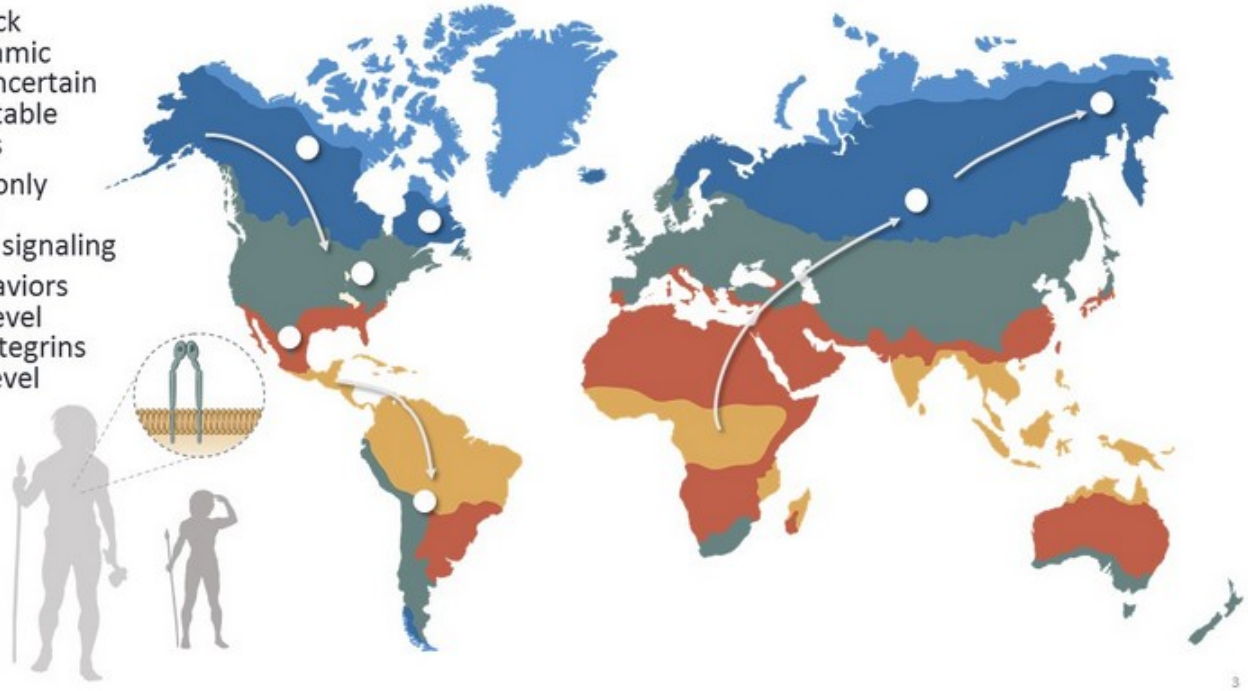
Praveen Tipirneni, MD
Cowen 40th Annual Healthcare Conference
March 4th, 2020

Forward Looking Statements

This presentation contains "forward-looking" statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to: Morphic's plan to develop and commercialize oral small-molecule integrin therapeutics and Morphic's expectations about timing and ability to obtain regulatory approvals for MORF-720, MORF-057, and other candidates in development and the sufficiency of our cash, cash equivalents and investments to fund our operations. Statements including words such as "believe," "plan," "continue," "expect," "will be," "develop," "signal," "potential," or "ongoing" and statements in the future tense are forward-looking statements. These forward-looking statements involve risks and uncertainties, as well as assumptions, which, if they do not fully materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Forward-looking statements are subject to risks and uncertainties that may cause Morphic's actual activities or results to differ significantly from those expressed in any forward-looking statement, including risks and uncertainties related to Morphic's ability to develop, obtain regulatory approval for and commercialize MORF-720, MORF-057, and other product candidates, the timing and results of preclinical studies and clinical trials, Morphic's ability to protect intellectual property; and other risks set forth in our filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof and Morphic specifically disclaims any obligation to update these forward-looking statements or reasons why actual results might differ, whether as a result of new information, future events or otherwise, except as required by law.

Adaptability to Dynamic Environments is the Human Story – and the Story of Integrins

- 2 way feedback enabling dynamic behavior in uncertain and unpredictable environments
- Integrins are only receptor with bi-directional signaling
- Complex behaviors at organism level enabled by integrins at a cellular level

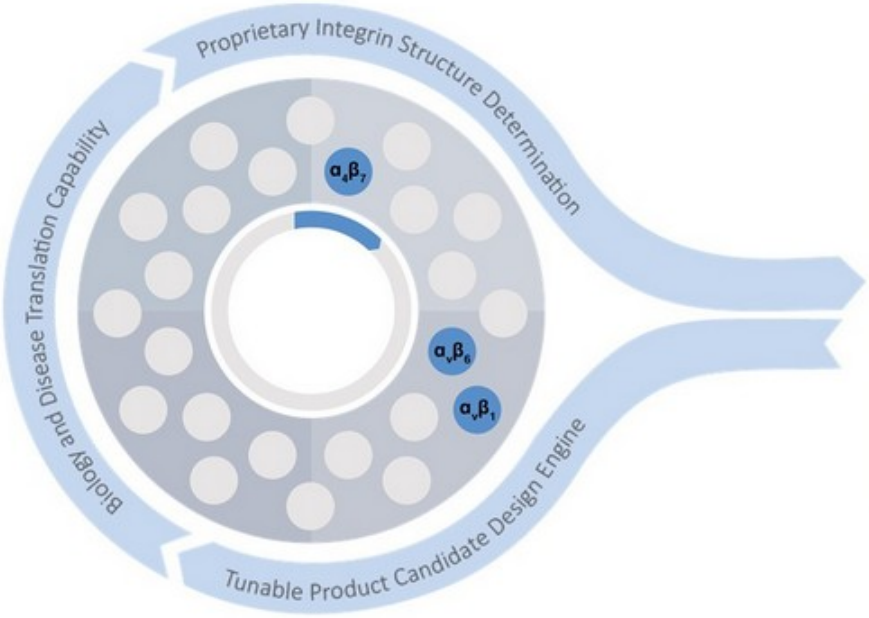


Unique Opportunity to Mine Integrins: Well Validated Target Class

Validated Target Class with Large Market Opportunity	• All approved integrin therapies are non-oral options for a wide variety of serious chronic diseases • Estimated 2018 sales of at least $4.6 billion[1]
THE Integrin Platform	• Leveraging proprietary databases, world-class know-how and decades of Springer laboratory research • Designed to target and modulate every known human integrin
Potential First-in-Class Pipeline	• Oral integrin therapies have historically failed in development due to poorly understood biology • Morphic's goal: deliver the first generation of approved oral integrin drugs in IBD, fibrosis and other indications
Tansformational Partnerships	• AbbVie ($100 million upfront); Morphic eligible for enhanced royalties in liver fibrosis with opt in • Janssen (up to $729 million in milestones in addition to potential royalties)
Strong Cash Position	• YE 2019 cash position: $237 million, through at least 2022

[1]Global Data

Morphic Integrin Technology (MInT) Platform



J Cell Biol, 2012

Morphic: Focused on Major Chronic Conditions

Development Pipeline

Our Programs	Indication	Status	Product Rights
MORF-057 Target: $\alpha_4\beta_7$	Inflammatory bowel disease (IBD)	Discovery → Preclinical → IND	Wholly Owned
MORF-720 Target:$\alpha_v\beta_6$	Idiopathic pulmonary fibrosis	Discovery → Preclinical → IND	abbvie
MR β_6 #2 Target:$\alpha_v\beta_6$	Primary Sclerosing Cholangitis	Discovery → Preclinical	Morphic/AbbVie

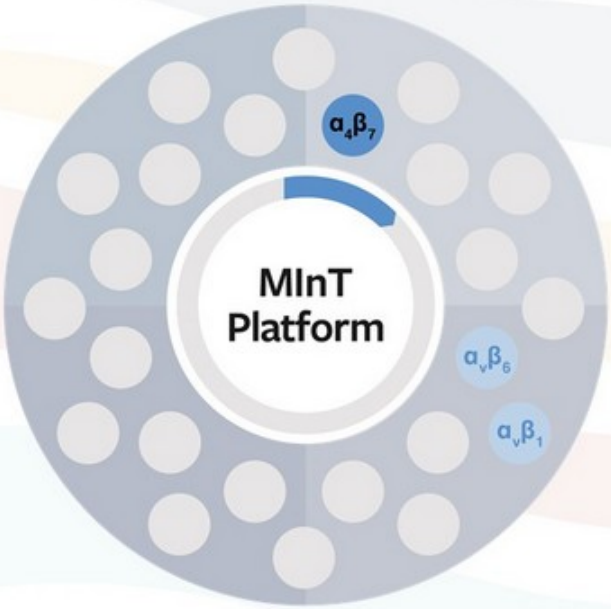
Research Pipeline

Focus	$\alpha_v\beta_1$ inhibition for fibrotic disease	TGF-β activation for solid tumors	TGF-β activation for fibrotic disease	Undisclosed targets, including αI domain integrins
Collaborator	Wholly owned	Wholly owned	abbvie	janssen

MORF-057

Targeting $\alpha_4\beta_7$

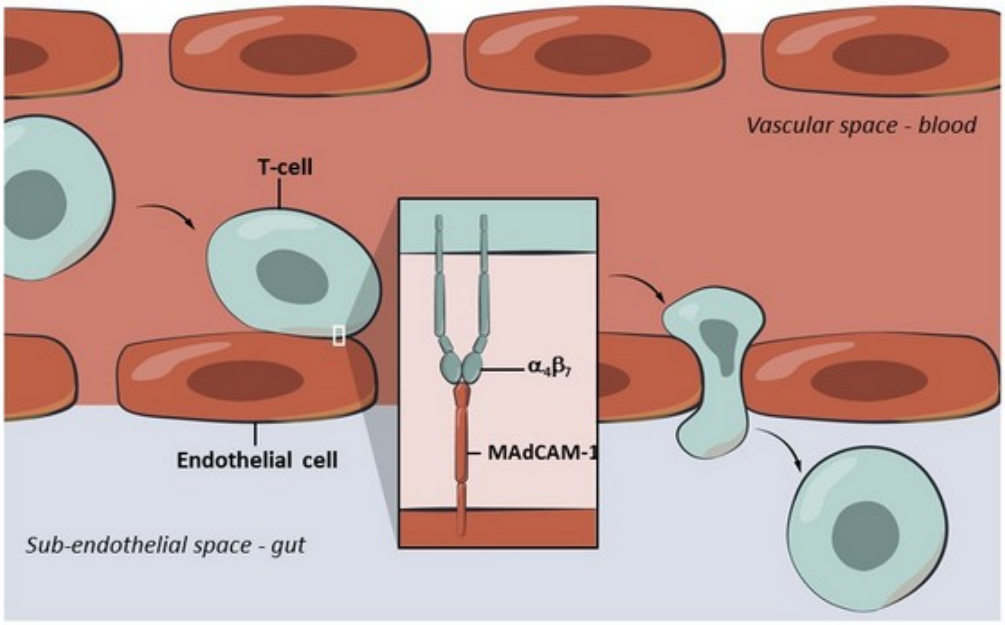
for Inflammatory Bowel Disease



$\alpha_4\beta_7$: A Proven Mechanism of Action in IBD

Approved vedolizumab: IV only

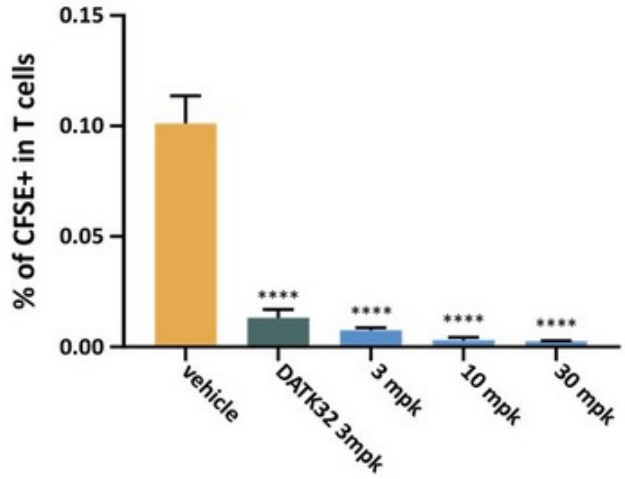
- IBD involves trafficking of $\alpha_4\beta_7$+ leukocytes to gut tissue via MAdCAM-1 binding, causing inflammation
- Vedolizumab (IV) inhibits this action and was approved for Ulcerative Colitis and Crohn's Disease in 2014
- 150,000 patients dosed since approval in 2014[1]
- 2018 EOY ~$2B[2]



[1]Takeda
[2]Global Data

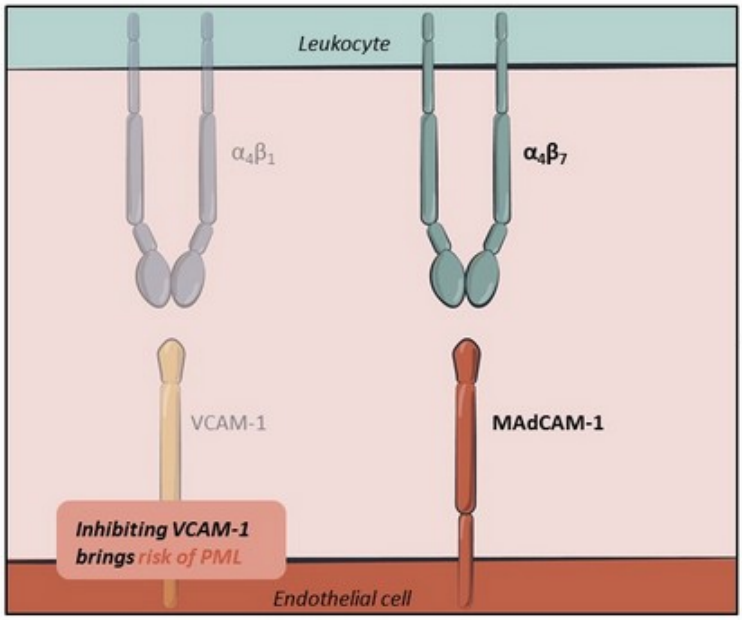
MORF-057: Pre-clinical Data Dose-dependent Anti-inflammatory Activity

T lymphocyte homing into mesenteric lymph nodes
Mean ± SEM



- p<0.05, ** p<0.01, ***p<0.001, and ****p<0.0001 vs. vehicle by One Way Anova followed by Dunnett's multiple comparisons
- DATK32 is a mouse surrogate of the $\alpha_4\beta_7$ antibody vedolizumab

MORF-057: Specifically Designed to be Highly Selective for $\alpha_4\beta_7$



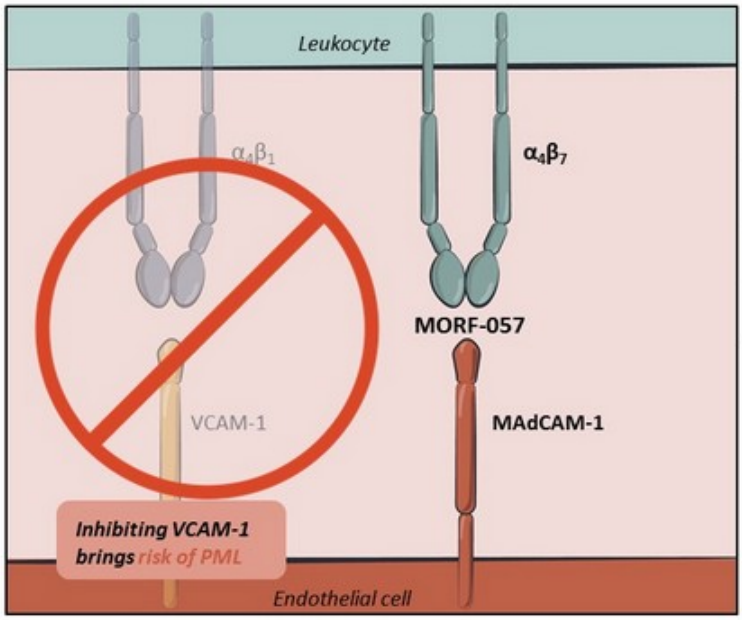
Inhibitor	$\alpha_4\beta_7$ IC_{50} RPMI8866 MADCAM	$\alpha_4\beta_1$ IC_{50} Jurkat VCAM	$\alpha_4\beta_1$ IC_{50} RPMI8866 VCAM	Fold selectivity
MORF-057	1.2 nM	>50 uM	3,600 nM	≥3,000
Vedolizumab	0.06 nM	>180 nM	>48 nM	>3,000
Natalizumab	0.15 nM	1.8 nM	0.14 nM	1-12
AJM300	140 nM	4,200	770 nM	5-30

Jurkat cell line traditionally used for a4b1

- MORF-057 is highly selective for $\alpha_4\beta_7$ over $\alpha_4\beta_1$ in cell adhesion assays in 50% human serum (over 3 orders of magnitude)
- MORF-057 has high selectivity against other integrins in fluorescence polarization assays with purified proteins

Presented at ECCO'20 Vienna Congress by Jamie Wong, Morphic Therapeutic

MORF-057: Specifically Designed to be Highly Selective for $\alpha_4\beta_7$



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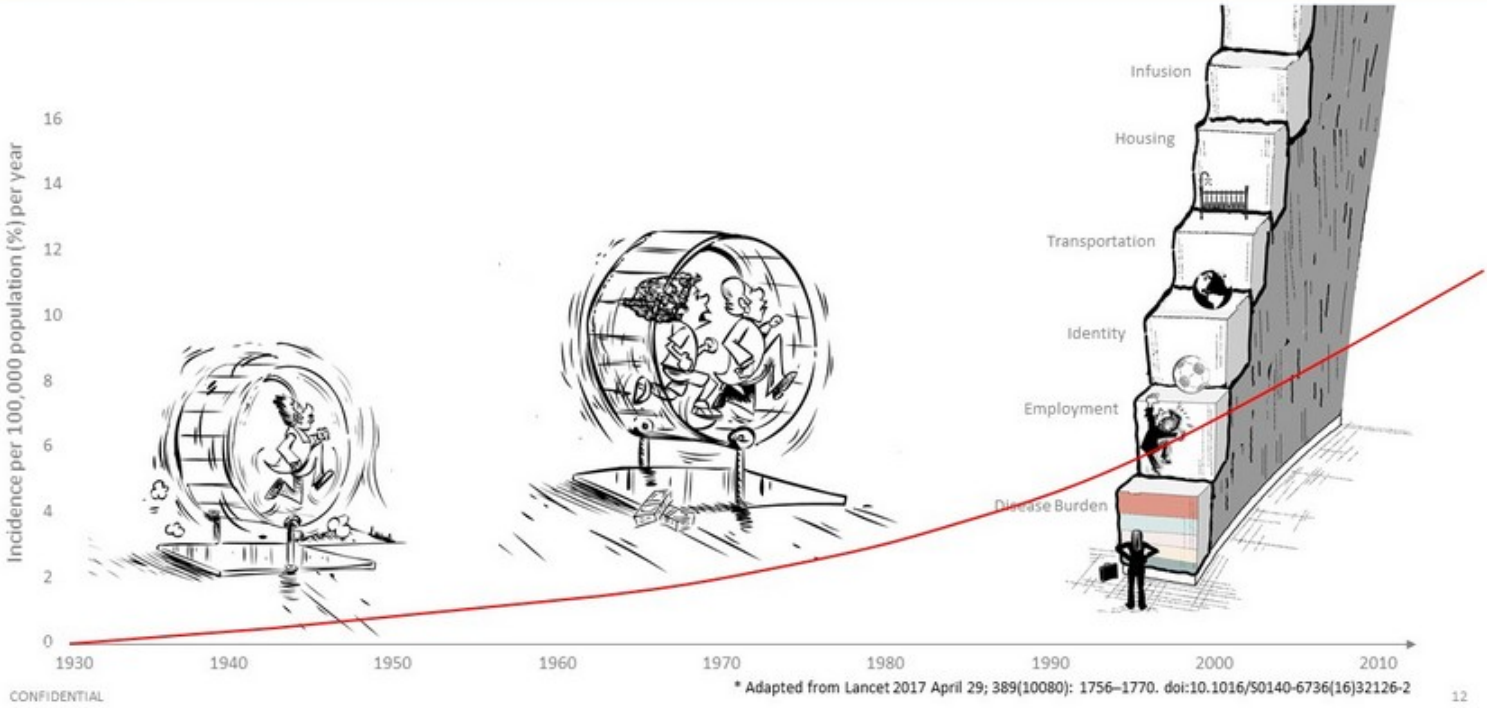
Presented at ECCO'20 Vienna Congress by Jamie Wong, Morphic Therapeutic

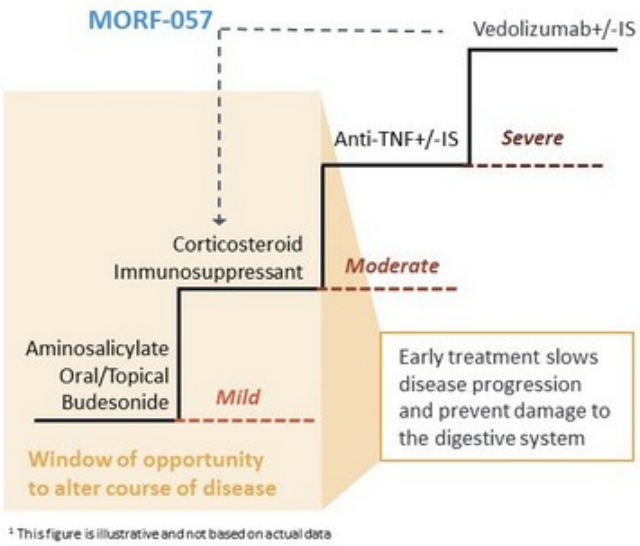
IBD: A Complex Disease Exacerbated by Complex Times



* Adapted from Lancet 2017 April 29; 389(10080): 1756–1770. doi:10.1016/S0140-6736(16)32126-2

MORF-057 Goal: Oral Vedolizumab

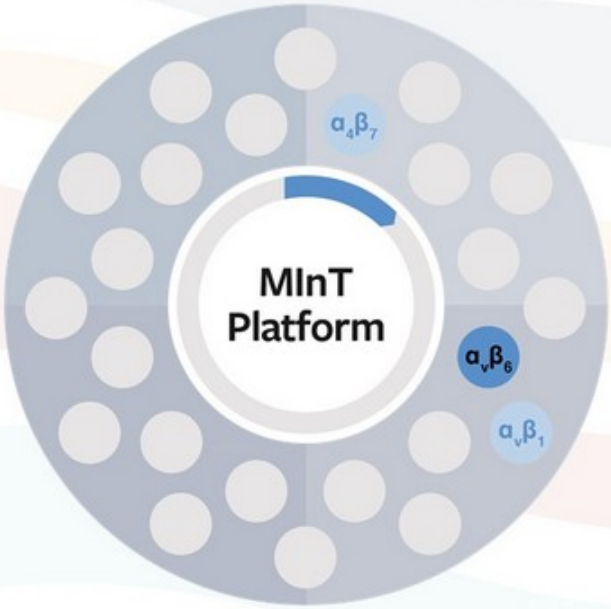
In addition to later-stage treatment, an oral option could intervene much earlier in disease progression



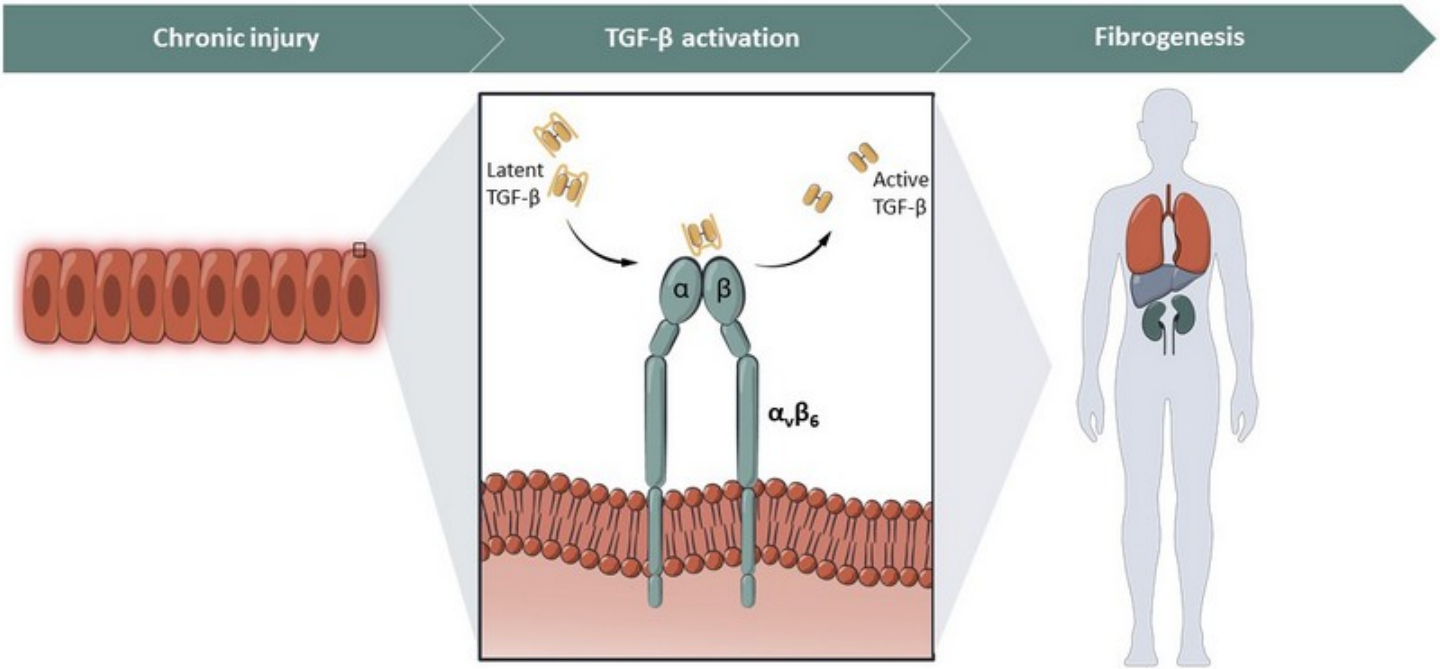
[1] This figure is illustrative and not based on actual data

MORF-720

Targeting $\alpha_v\beta_6$ to block TGF-β-driving fibrosis in multiple diseases with AbbVie



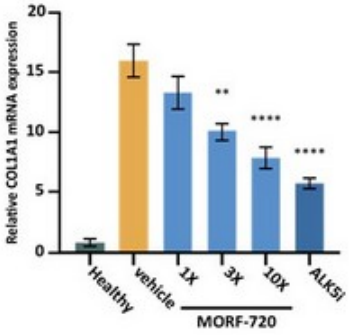
$\alpha_v\beta_6$: Essential Activator of TGF-β Signaling



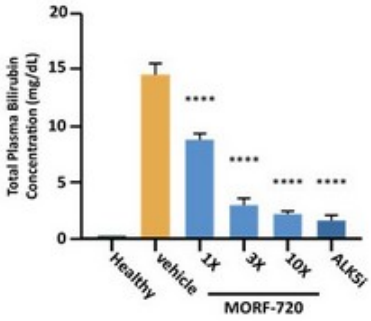
Morphic Oral $\alpha_v\beta_6$ Inhibitor: Strong Support for Mechanism of Action and Design

- MORF-720 delivers dose-dependent reductions in liver fibrosis in mice model
- Shown to stabilize closed conformation of $\alpha_v\beta_6$
- Excellent multi-species PK
- Highly potent and selective

COL1A1
Mean ± SEM

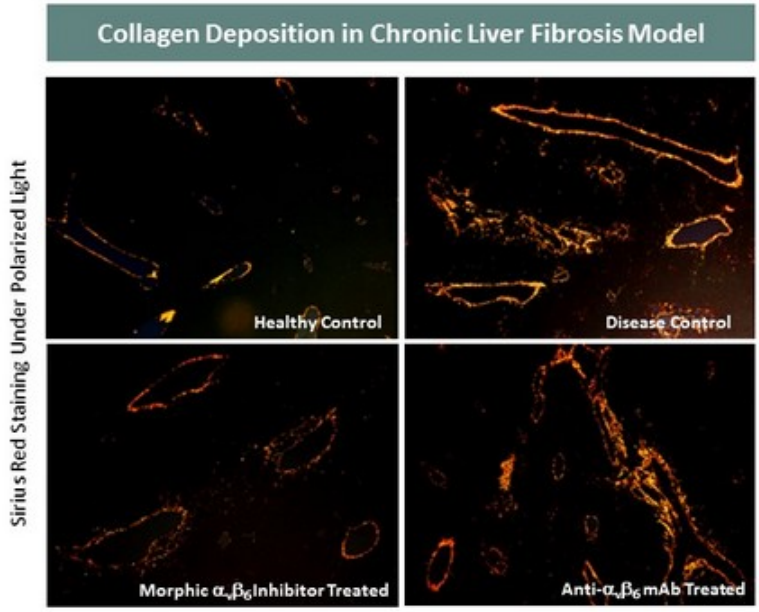


Total Bilirubin
Mean ± SEM



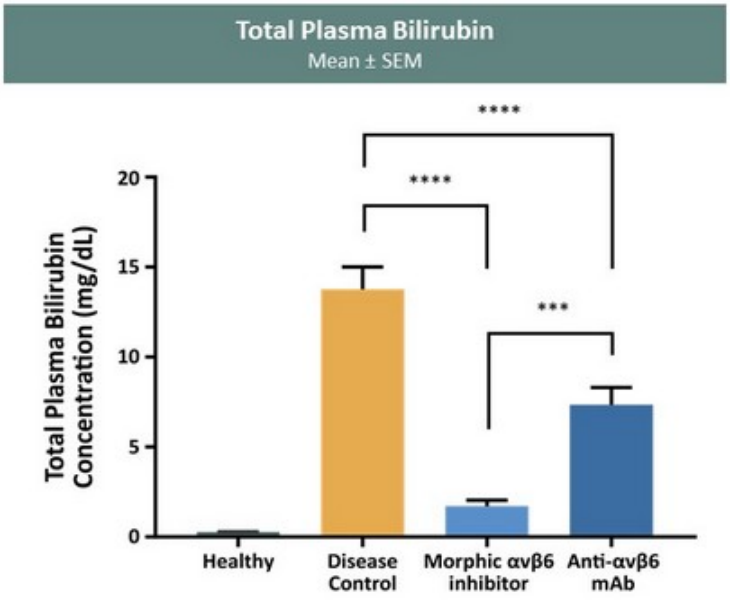
- p<0.05, ** p<0.01, ***p<0.001, and ****p<0.0001 vs. vehicle by One Way Anova followed by Dunnett's multiple comparisons

Morphic Oral Integrin Inhibitor: Activity in Anti-$\alpha_V\beta_6$ mAb in Collagen Model of Fibrosis



Morphic Oral Integrin Inhibitor: Superior in Bilirubin Model of Fibrosis

- Bilirubin is a marker of liver tissue damage



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Building the Future of Integrin Medicines

Deep specialist expertise across management, Board and Advisors

PRAVEEN TIPIRNENI, MD
President and Chief Executive Officer
CUBIST

BRUCE ROGERS, PhD
Chief Scientific Officer
PHARMACIA Pfizer

ALEXEY A. LUGOVSKOY, PhD
Chief Development Officer
merrimack Biogen

BLAISE LIPPA, PhD
Head of Chemistry
Pfizer CUBIST

ADRIAN RAY, PhD
Head of Translational Sciences
GILEAD

WILLIAM DeVAUL
General Counsel and Secretary
EVELO CUBIST

Well capitalized, partnered and poised to advance oral integrins

Launch	Series A	Series B	abbvie	janssen	IPO	*Planned clinical trials in 2020*
	$51 M	$80M	$100M	$10M	$103.5M[1]	
Aug 2015	Jun 2016	Sep 2018	Oct 2018	Feb 2019	Jun 2019	YE19 Cash: $237 million

[1]$103.5M gross proceeds before fees

THANK YOU