

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): January 13, 2020

**Agios Pharmaceuticals, Inc.**  
(Exact Name of Registrant as Specified in Charter)

Delaware  
(State or Other Jurisdiction  
of Incorporation)

001-36014  
(Commission  
File Number)

26-0662915  
(IRS Employer  
Identification No.)

88 Sidney Street, Cambridge, MA  
(Address of Principal Executive Offices)

02139  
(Zip Code)

Registrant's telephone number, including area code: (617) 649-8600

(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 (see General Instruction A.2. below):

- 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))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, Par Value \$0.001 per share	AGIO	Nasdaq Global Select Market

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

Emerging growth company

If an emerging growth 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 7.01 Regulation FD Disclosure.**

On January 13, 2020, Agios Pharmaceuticals, Inc. (the "Company") conducted an investor presentation at the 38<sup>th</sup> Annual J.P. Morgan Healthcare Conference in San Francisco, California. A copy of the presentation is furnished as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

The information in Item 7.01 of this Current Report on Form 8-K and Exhibit 99.1 attached hereto is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such filing.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	<a href="#">Investor presentation provided by the Company on January 13, 2020.</a>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

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.

AGIOS PHARMACEUTICALS, INC.

Date: January 13, 2020

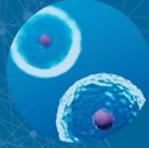
By: /s/ Jacquelyn A. Fouse

Jacquelyn A. Fouse, Ph.D.  
Chief Executive Officer



# AGIOS 2025 VISION

38th Annual J.P. Morgan Healthcare Conference  
January 13, 2020



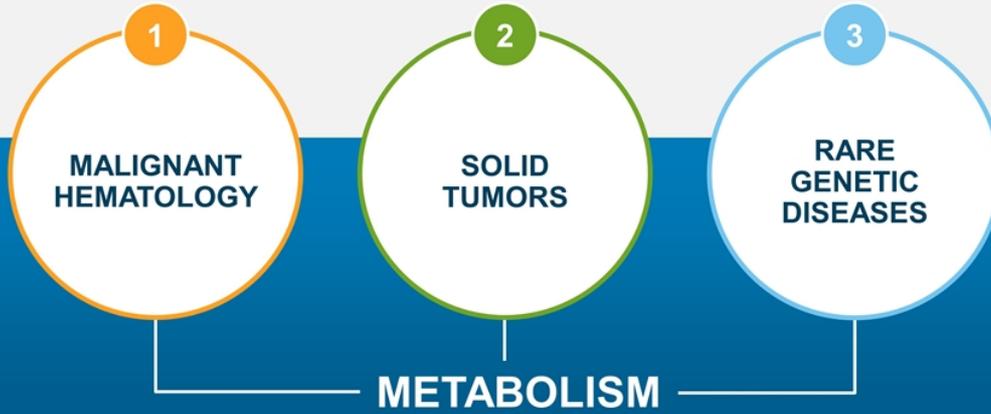
## Forward Looking Statements

This presentation and various remarks we make during this presentation contain forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Such forward-looking statements include those regarding Agios' plans, strategies and expectations for its and its collaborator's preclinical, clinical and commercial advancement of its drug development programs including TIBSOVO® (ivosidenib), IDHIFA® (enasidenib), mitapivat, vorasidenib, AG-270 and AG-636; the potential benefits of Agios' product candidates; Agios's strategic vision and goals for 2025; its key milestones for 2020; its estimates regarding its balance of cash, cash equivalents and marketable securities for the year ended December 31, 2019; its plans regarding future data presentations; its financial guidance regarding the period in which it will have capital available to fund its operations; and the potential benefit of its strategic plans and focus. The words "anticipate," "expect," "hope," "milestone," "plan," "potential," "possible," "strategy," "will," "vision," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Such statements are subject to numerous important factors, risks and uncertainties that may cause actual events or results to differ materially from Agios' current expectations and beliefs. For example, there can be no guarantee that any product candidate Agios or its collaborators is developing will successfully commence or complete necessary preclinical and clinical development phases, or that development of any of Agios' product candidates will successfully continue. There can be no guarantee that any positive developments in Agios' business will result in stock price appreciation. Management's expectations and, therefore, any forward-looking statements in this presentation and various remarks we make during this presentation could also be affected by risks and uncertainties relating to a number of other important factors, including: Agios' results of clinical trials and preclinical studies, including subsequent analysis of existing data and new data received from ongoing and future studies; the content and timing of decisions made by the U.S. FDA, the EMA or other regulatory authorities, investigational review boards at clinical trial sites and publication review bodies; Agios' ability to obtain and maintain requisite regulatory approvals and to enroll patients in its planned clinical trials; unplanned cash requirements and expenditures; competitive factors; Agios' ability to obtain, maintain and enforce patent and other intellectual property protection for any product candidates it is developing; Agios' ability to maintain key collaborations; and general economic and market conditions. These and other risks are described in greater detail under the caption "Risk Factors" included in Agios' public filings with the Securities and Exchange Commission. Any forward-looking statements contained in this presentation and various remarks we make during this presentation speak only as of the date hereof, and Agios expressly disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.



## Our Strategy is Clear

For more than a decade, our mission has been to create **differentiated, small molecule medicines for patients** in three focus areas – malignant hematology, solid tumors and rare genetic diseases – based on our unique expertise in **cellular metabolism** and adjacent areas of biology



# Our People and Culture Fuel Incredible Productivity, Strategic Focus and Continuity from Early Research to Market

10 YEARS

Productive  
Research Engine

7

INVESTIGATIONAL NEW  
DRUG CANDIDATES

Creative Clinical  
Development

70+

PEER-REVIEWED  
PUBLICATIONS

Patient-centric  
Approach

15+

RESEARCH  
PROGRAMS

“Other Side Of  
Possible” Culture

1,500+

PATIENTS TREATED IN OUR  
CLINICAL TRIALS

2 MEDICINES APPROVED + 4 ADDITIONAL MOLECULES IN  
CLINICAL DEVELOPMENT

~550

HIGH CALIBER EMPLOYEES WITH 1 VISION

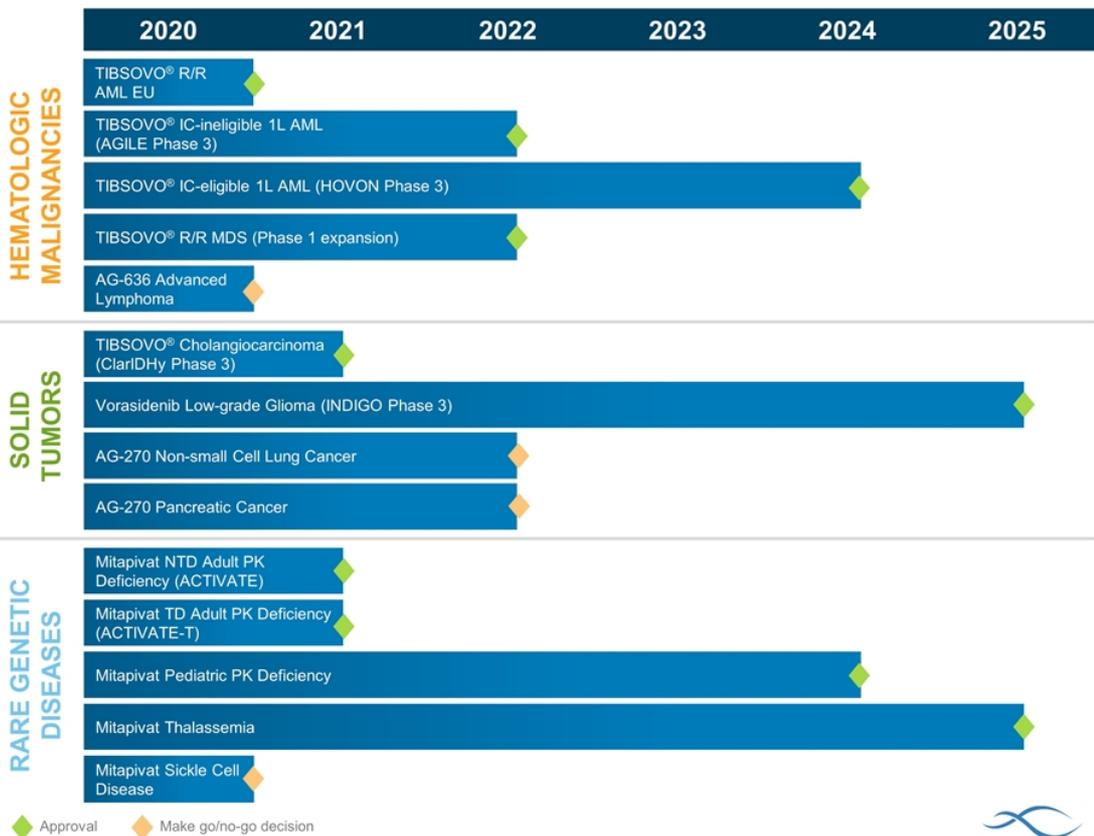


**Agios 2025 Vision: Focused Innovation. Ambitious Development. Transformative Treatments for Patients Across Three Focus Areas.**

	NOW	2025
COMMERCIAL	2 MEDICINES	4 MEDICINES
LABEL EXPANSION	2 INDICATIONS	8+ INDICATIONS
PRODUCTIVE DISCOVERY ENGINE	4 MOLECULES IN THE CLINIC	6+ MOLECULES IN THE CLINIC
FINANCIAL	\$105-115M EXPECTED U.S. TIBSOVO® 2020 REVENUE	CASH FLOW POSITIVE



# Multiple Potential Near- and Long-term Value Drivers Across All Focus Areas



# Highly Productive Research Engine with Optionality Across Focus Areas

Program	Target Discovery	Target Validation	Drug Discovery	Drug Candidate
<b>Malignant Hematology</b>				
MAT2A Follow-Ons			●	
Macrophage I-O Target			●	
Tumor I-O Target			●	
Genetically Defined Heme Target			●	
Metabolic I-O Exploratory Programs	●	●		
Other Exploratory Programs	●	●		
<b>Solid Tumor</b>				
MAT2A Follow-Ons			●	
Macrophage I-O Target			●	
Tumor I-O Target			●	
Genetically Defined Solid Tumor Target			●	
Metabolic I-O Exploratory Programs	●	●		
Other Exploratory Programs	●	●		
<b>Rare Genetic Diseases</b>				
AG-946 (Pyruvate Kinase Activator Follow-On)				●
Phenylketonuria (PKU)			●	
Erythroid Porphyrria			●	
Friedreich's Ataxia			●	
Other Exploratory Programs	●	●		

● Metabolic Target    
 ● Non-Metabolic Target    
 ● Metabolic and Non-Metabolic Targets    
  Bristol-Myers Squibb Collaboration





1

Malignant Hematology

2

Solid Tumors

3

Rare Genetic Diseases



CREATING MEDICINES IN  
THREE FOCUS AREAS

1

Malignant Hematology

2

Solid Tumors

3

Rare Genetic Diseases

# Significant Growth Potential in Malignant Hematology

**~4K**  
**PATIENTS IN**  
**U.S. & EU**

**IDH1 Mutant Acute Myeloid  
 Leukemia (AML)**

**TIBSOVO®**

<b>R/R AML</b>	U.S. Approval; MAA Under Review
<b>1L Monotherapy</b>	U.S. Approval
<b>1L HMA Combo</b>	Phase 3
<b>1L 7+3 Combo</b>	Phase 3

**<1K**  
**PATIENTS IN**  
**U.S.**

**IDH1 Mutant Myelodysplastic  
 Syndrome (MDS)**

**TIBSOVO®**

<b>R/R MDS</b>	Phase 1 Expansion
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**~55K**  
**PATIENTS IN**  
**U.S. & EU**

**Mantle Cell and Diffuse Large  
 B Cell Lymphoma**

**AG-636**

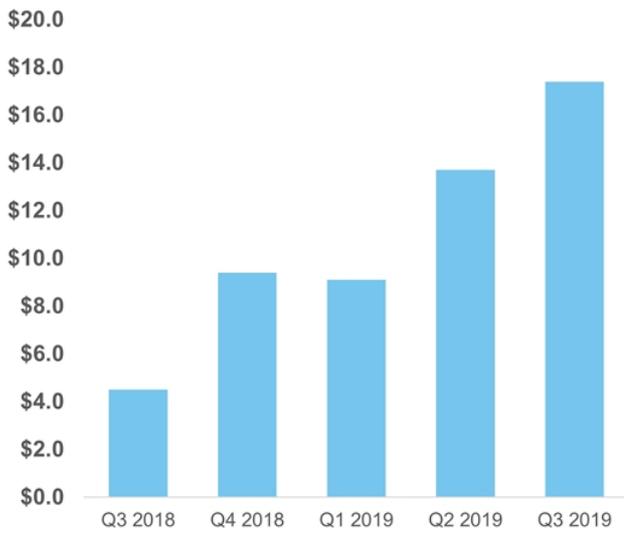
<b>R/R Lymphoma</b>	Phase 1
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10 Source: Agios estimates, market research, SEER, MDS Foundation, Datamonitor



# Successful TIBSOVO® Launch in R/R and Frontline AML Result of Focused Commercial Effort

TIBSOVO® Revenue



**\$105 – 115M**

U.S. Net Sales Guidance for 2020



**>90%**

Physicians Testing for IDH1/IDH2 mutations



**~515**

Unique Prescribers as of Q4 2019



**>1,000**

Patients Treated Since Launch

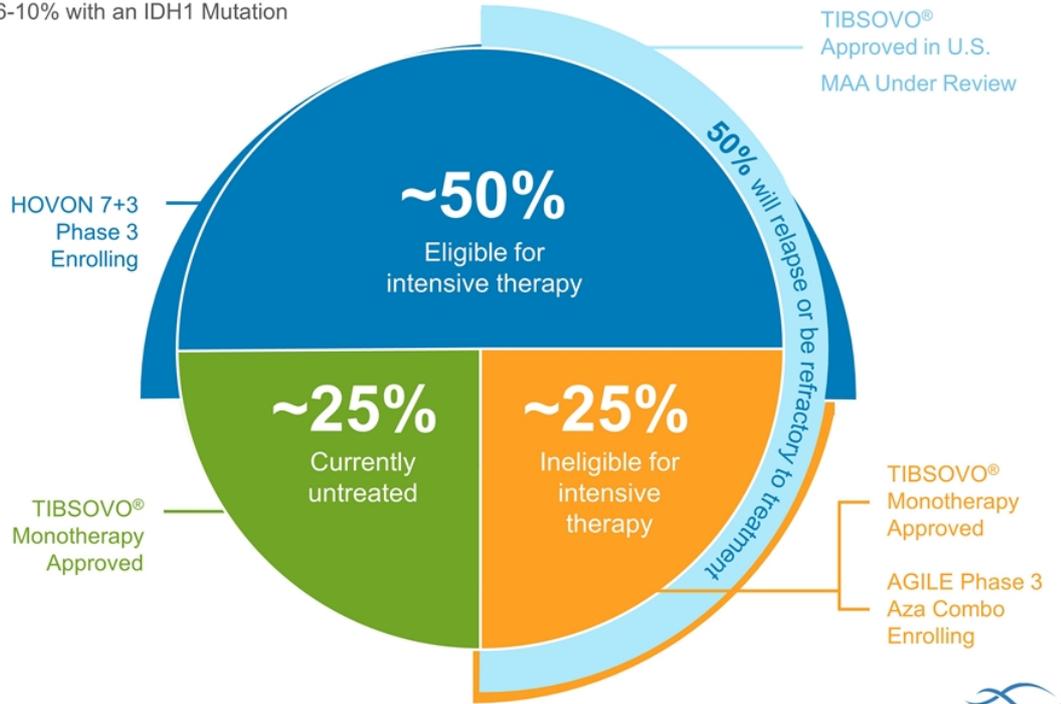
Source: Agios estimates



Advancing  
Toward Largest  
Opportunity for  
MIDH1 AML:  
Intensive and  
Non-Intensive  
Therapy  
Combinations

## 50K AML Patients Diagnosed Per Year in U.S. and EU

6-10% with an IDH1 Mutation



Sources: SEER. Cancer Stat Facts: AML 2015 and Epiphany EPIC oncology numbers; American Cancer Society. AML 2017.





CREATING MEDICINES IN  
THREE FOCUS AREAS

1

Malignant Hematology

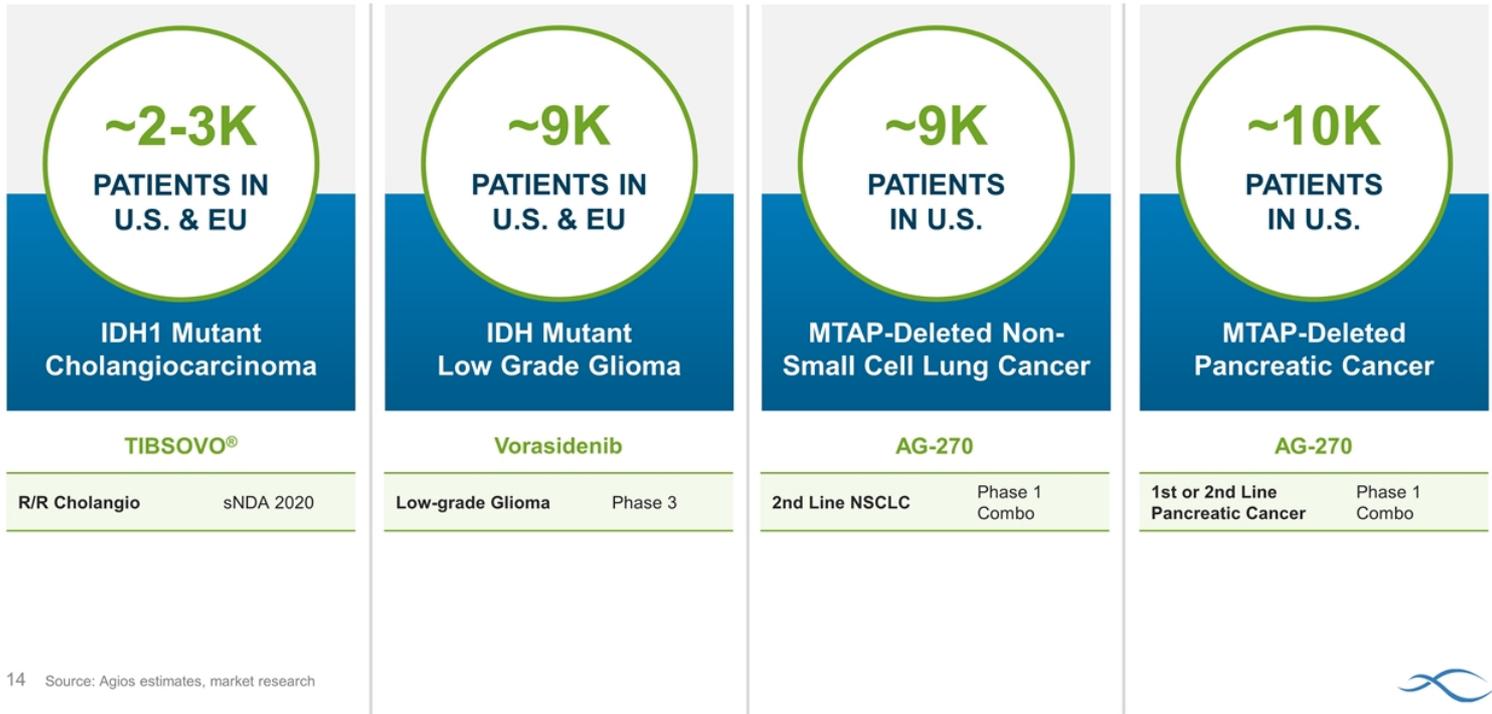
2

Solid Tumors

3

Rare Genetic Diseases

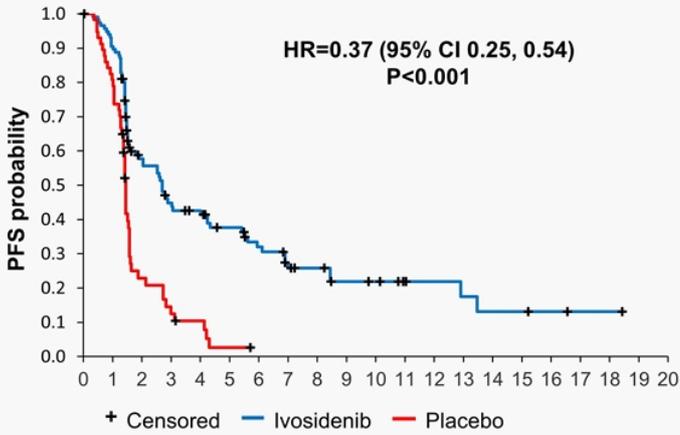
# Four Distinct Solid Tumor Opportunities Across Three Clinical Molecules



# Established Utility of IDH Inhibition in Solid Tumors with Positive ClarIDHy Phase 3 Study of TIBSOVO® in Second-line or Later Cholangiocarcinoma

Mature OS from ClarIDHy Phase 3 expected mid-2020; sNDA planned by YE

Phase 3 ClarIDHy Study Achieved Primary Endpoint,  
Demonstrating Statistically Significant Improvement in PFS



LOW SURVIVAL RATES

FEW TREATMENT OPTIONS

POSITIVE CLARIDHY RESULTS

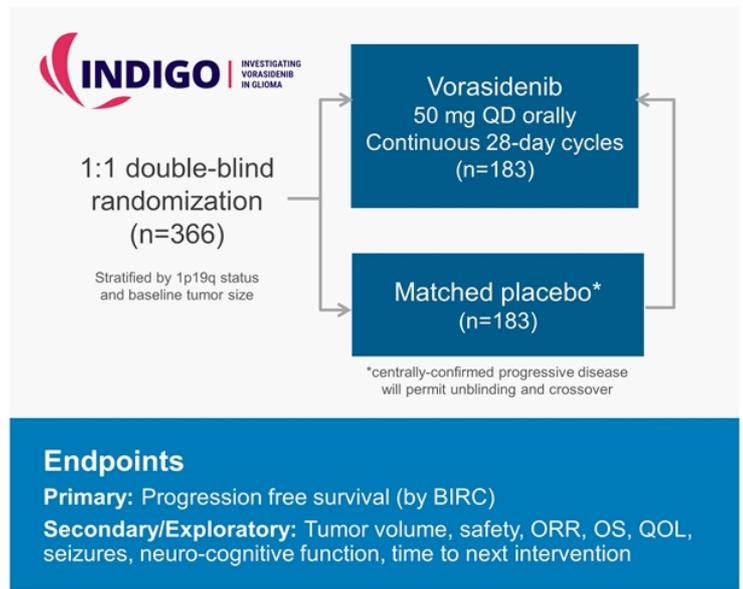
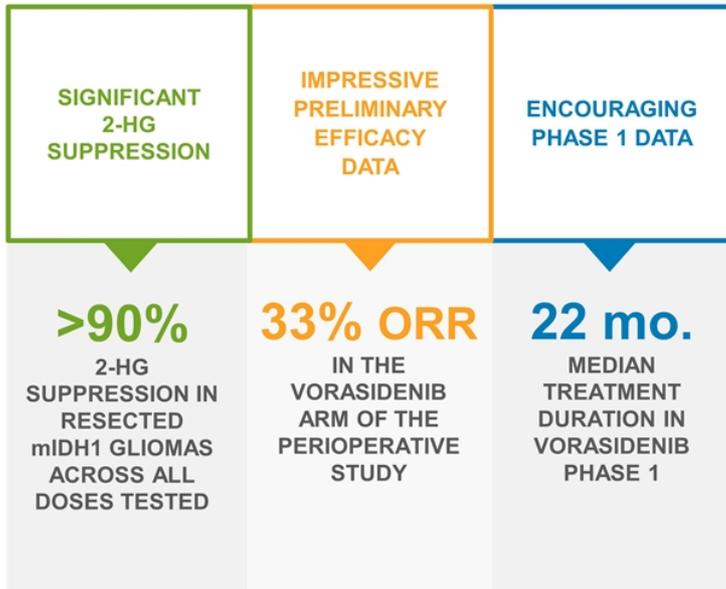
~9%  
FIVE-YEAR OVERALL SURVIVAL RATE

0  
APPROVED THERAPIES FOR mIDH1 PATIENTS

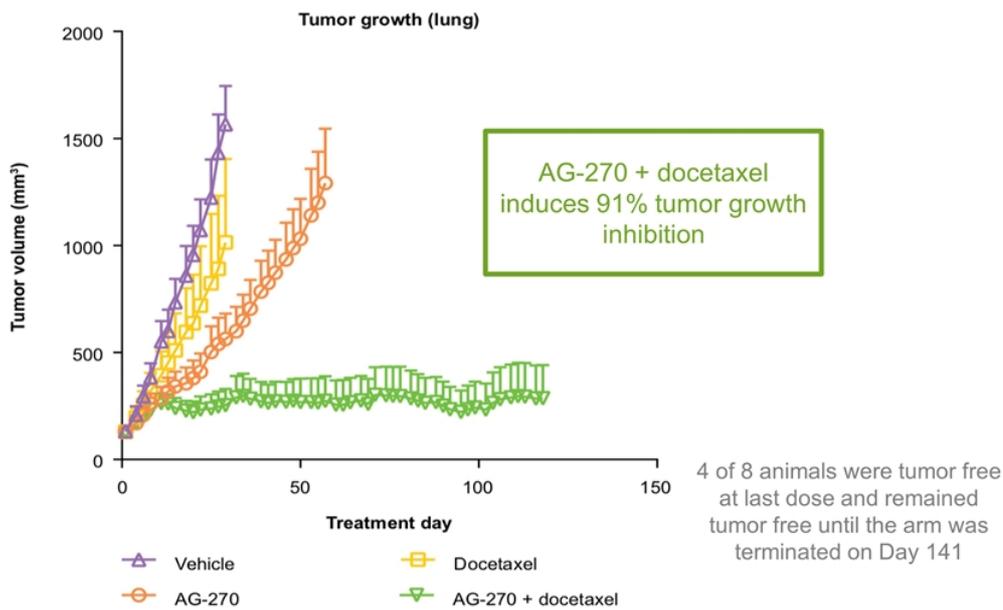
63%  
REDUCTION IN RISK OF DISEASE PROGRESSION OR DEATH FOR PATIENTS TREATED W/ TIBSOVO®



# Global Phase 3 INDIGO Study of Vorasidenib in IDH Mutant Low-Grade Glioma Open and Enrolling



# AG-270, MAT2A Inhibitor, Preclinical Data Supports Combination with Taxanes; Two Phase 1 Combination Arms Enrolling Patients



Source: Data presented at AACR-NCI-EORTC 2019

## PHASE 1 COMBINATION ARMS INITIATED

AG-270 + docetaxel in MTAP-deleted NSCLC (2<sup>nd</sup> line)  
N = up to 40

AG-270 + nab-paclitaxel and gemcitabine in MTAP-deleted pancreatic ductal adenocarcinoma (1<sup>st</sup> or 2<sup>nd</sup> line)  
N = up to 45





CREATING MEDICINES IN THREE  
FOCUS AREAS

1

Malignant Hematology

2

Solid Tumors

3

Rare Genetic Diseases

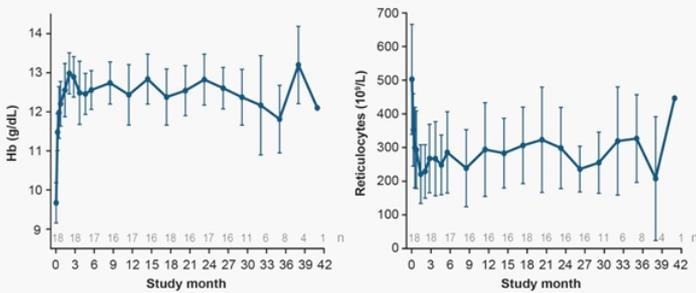
# PKR Activation Represents Unique Mechanism of Action with Potential to Address Broad Range of Hemolytic Anemias

Normal Red Cell	Pyruvate Kinase Deficiency	Other Hemolytic Anemias
<p>PEP wtPKR ↓ ↙  Pyruvate</p> <p>Cellular demand: </p>	<p>PEP mPKR ↓ ↙  Pyruvate</p> <p>Cellular demand: </p>	<p>PEP wtPKR ↓ ↙  Pyruvate</p> <p>Cellular demand: </p>
<p><b>ATP production meets demand</b></p>	<p><b>Inadequate production: ATP deficiency</b></p>	<p><b>Increased demand: ATP deficiency</b></p>
	<ul style="list-style-type: none"> <li>▪ Proof-of-concept achieved</li> <li>▪ Adult PK deficiency approval expected in 2021</li> <li>▪ Pediatric PK deficiency pivotal strategy to be finalized in 2020</li> </ul>	<ul style="list-style-type: none"> <li>▪ Thalassemia proof-of-concept achieved</li> <li>▪ NIH sponsored trial in sickle cell disease ongoing</li> </ul>



# Mitapivat has Potential to be First Disease-modifying Therapy for Patients with PK Deficiency

## Improvements in Hemoglobin and Other Hemolysis Markers Maintained for More Than 3 Years in Responding Patients from DRIVE PK Extension



Chronic daily dosing with mitapivat for a median of 3 years and up to 42 months was well tolerated

COMPLICATIONS & COMORBIDITIES REGARDLESS OF TRANSFUSION STATUS

SUPPORTIVE CARE ONLY

HIGH RISK OF IRON OVERLOAD

HIGHER LIFETIME RATES OF PULMONARY HYPERTENSION, OSTEOPOROSIS, AND LIVER CIRRHOSIS

0 APPROVED THERAPIES

38% OF PATIENTS NOT RECEIVING REGULAR TRANSFUSIONS EXPERIENCE IRON OVERLOAD

Source: Data presented at ASH 2019; van Beers EJ, et al. Haematologica. 2019;104(2):e51-e53.



Clinical Proof-of-  
concept for  
Mitapivat  
Established in  
Non-transfusion-  
dependent  
Thalassemia

7 of 8 efficacy evaluable patients achieved a hemoglobin increase of  $\geq 1.0$  g/dL from baseline in at least one assessment (weeks 4 – 12)

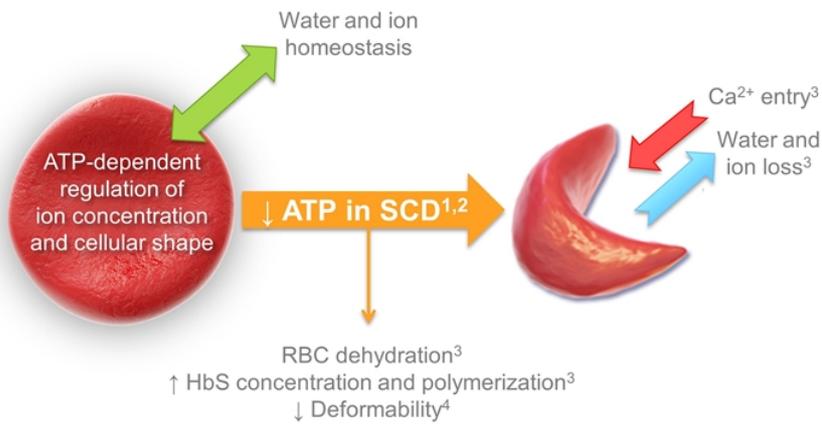
In responding patients, the mean hemoglobin increase from baseline was 1.76 g/dL (range, 0.9 – 3.3 g/dL)

Majority of adverse events were Grade 1 or 2 and consistent with previously published Phase 2 data for mitapivat in patients with PK deficiency

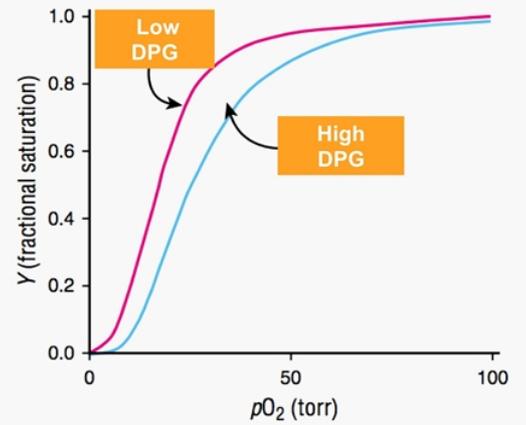
Updated Phase 2 thalassemia data to be submitted for presentation at EHA and pivotal strategy to be finalized by YE 2020



# Therapeutic Hypothesis for Wildtype PKR Activation in Sickle Cell Disease: 2,3-DPG and ATP Modulation Improves Anemia and Reduces Sickling



## 2,3-DPG Shifts the Oxygen Saturation Curve



ATP, adenosine triphosphate; HbS, sickle cell hemoglobin; RBC, red blood cell; SCD, sickle cell disease.

1. Palek J, Liu SC. *J Supramol Struct.* 1979;10(1):79-96. 2. Glader BE, et al. *Br J Haematol.* 1978;40(4):527-32.

3. Bogdanova A, et al. *Int J Mol Sci.* 2013;14(5):9848-72. 4. Park Y, et al. *Proc Natl Acad Sci USA.* 2010;107(4):1289-94.



# PKR Activation Has Potential Broad Utility Across Hemolytic Anemias

**~3-8K**  
**PATIENTS IN**  
**U.S. & EU**

**Pyruvate Kinase Deficiency**

<b>NTD Adult PKD</b>	Phase 3 Enrollment to Complete in Q1 2020
<b>TD Adult PKD</b>	Phase 3 Enrollment Complete
<b>Pediatric PKD</b>	Pivotal Plan by YE

**~18-23K**  
**PATIENTS IN**  
**U.S. & EU**

**$\beta$ - and  $\alpha$ -Thalassemia**

<b>NTD <math>\beta</math>- and <math>\alpha</math>-Thalassemia</b>	Phase 2
<b>Thalassemia</b>	Pivotal Plan by YE

**~120-135K**  
**PATIENTS IN**  
**U.S. & EU**

**Sickle Cell Disease**

<b>Adult SCD</b>	NIH CRADA
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1

Malignant Hematology

2

Solid Tumors

3

Rare Genetic Diseases

## HEMATOLOGIC MALIGNANCIES

- Achieve full-year U.S. revenue for TIBSOVO® \$105-115M
- Receive CHMP opinion for TIBSOVO® in mIDH1 relapsed/refractory AML
- Complete enrollment in AGILE Phase 3 trial of TIBSOVO® + azacitidine in frontline mIDH1 AML
- Complete enrollment in MDS arm of TIBSOVO® Phase 1

## SOLID TUMORS

- File sNDA for TIBSOVO® in mIDH1 previously treated cholangiocarcinoma

## RARE GENETIC DISEASES

- Topline data in PK deficiency from ACTIVATE and ACTIVATE-T
- Present data from mitapivat Phase 2 thalassemia study and finalize pivotal trial strategy in thalassemia
- Achieve proof-of-concept for mitapivat in sickle cell disease
- Initiate first-in-human study for next generation PKR activator, AG-946

## RESEARCH

- Achieve at least 1 new development candidate





# AGIOS 2025 VISION:

Focused Innovation. Ambitious Development.  
Transformative Treatments for Patients Across Three Focus Areas.

**4**

**MEDICINES**

**8+**

**INDICATIONS**

**6+**

**MOLECULES  
IN THE CLINIC**

**\$**

**CASH FLOW  
POSITIVE**