



Q4 & Full Year 2021 Financial Results

February 24, 2022

Agios conference call participants

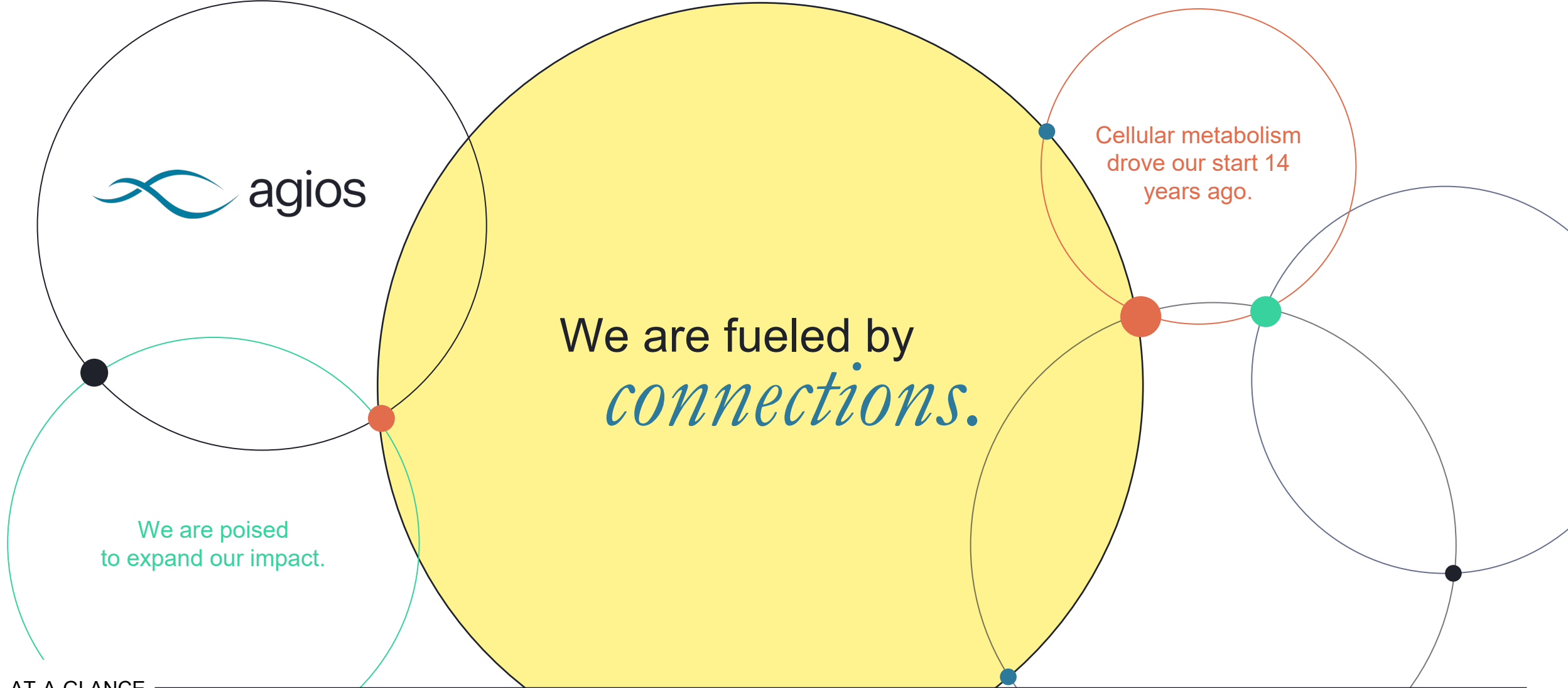
| TOPIC | PARTICIPANT |
|---|---|
| Introductions | Holly Manning, Senior Director of Investor Relations |
| Business Update | Jackie Fouse, Ph.D., Chief Executive Officer |
| Clinical Development Update | Sarah Gheuens, M.D., Ph.D., Chief Medical Officer |
| Commercial Update | Richa Poddar, Chief Commercial Officer |
| Fourth Quarter and Full Year 2021 Financial Results | Jonathan Biller, Chief Financial Officer, Head of Corporate Affairs |
| Q&A | Bruce Car, Ph.D., Chief Scientific Officer |



Forward-looking statements

This communication contains 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 the preclinical, clinical and commercial advancement of its drug development programs, including PYRUKYND® (mitapivat) and AG-946; the potential benefits of Agios' products and product candidates; Agios' key milestones and guidance for 2022; its financial guidance regarding the period in which it will have capital available to fund its operations; and the potential benefits of Agios' strategic plans and focus. The words "anticipate," "expect," "goal," "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. Management's expectations and, therefore, any forward-looking statements in this communication could also be affected by risks and uncertainties relating to a number of other important factors, including, without limitation risks and uncertainties related to: the failure of Agios to receive milestone or royalty payments related to the sale of its oncology business, the uncertainty of the timing of any receipt of any such payments, and the uncertainty of the results and effectiveness of the use of proceeds from the transaction with Servier; the impact of the COVID-19 pandemic on Agios' business, operations, strategy, goals and anticipated milestones, including its ongoing and planned research activities, ability to conduct ongoing and planned clinical trials, clinical supply of current or future drug candidates, commercial supply of future approved products, and launching, marketing and selling future approved products; 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, including with respect to the regulatory submissions for PYRUKYND® (mitapivat), 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 and 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 establish and maintain 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, or SEC, including the risks and uncertainties set forth under the heading Risk Factors in our filings with the SEC. While the list of factors presented here is considered representative, this list should not be considered to be a complete statement of all potential risks and uncertainties. Any forward-looking statements contained in this communication are made only as of the date hereof, and we undertake no obligation to update forward-looking statements to reflect developments or information obtained after the date hereof and disclaim any obligation to do so other than as may be required by law.





AT-A-GLANCE

FOUNDED
2008

IPO
July 2013

1ST APPROVED THERAPIES
2017 & 2018

1ST GENETICALLY DEFINED DISEASE APPROVAL
2022

HEADQUARTERS
Cambridge, Mass.

The future of
Agios is
driven by
*innovation &
impact*

01

We intentionally cultivate internal and external connections

02

We have a strong balance sheet and are well capitalized to execute on our near- and long-term business strategy

03

Our unmatched expertise in cellular metabolism has yielded a pipeline with the depth, breadth and optionality to deliver sustained productivity

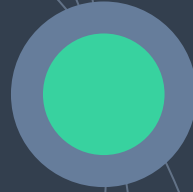
04

We pioneered PK activation clinical development with a differentiated approach to global development and community partnerships

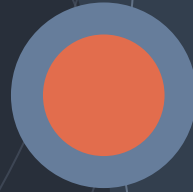
05

We are ready to maximize the success of our first genetically defined disease product launch in a serious disease with no approved therapies





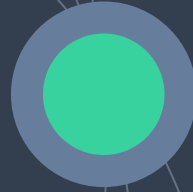
Clinical



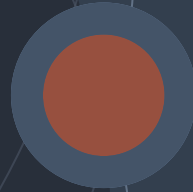
Commercial



Financial



Clinical



Commercial




Financial

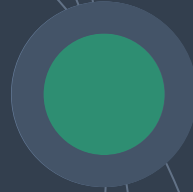
| DISCOVERY | EARLY-STAGE CLINICAL DEVELOPMENT | LATE-STAGE CLINICAL DEVELOPMENT | REGULATORY SUBMISSION | APPROVAL |
|---|----------------------------------|---------------------------------|-----------------------|--|
| <i>Pyruvate Kinase Deficiency</i> | ACTIVATE Kids* | | U.S. | |
| | ACTIVATE KidsT* | | EU | |
| | ENERGIZE | | | <i>ISTs</i> NIH PHASE 1 SCD UTRECHT PHASE 1 SCD HEREDITARY SPHEROCYTOSIS* |
| | ENERGIZE-T | | | |
| <i>α- and β-Thalassemia</i> | RISE UP | | | |
| | PHASE 1 | | | |
| <i>Sickle Cell Disease</i> | PHASE 2* | | | |
| | | | | |
| <i>Healthy Volunteers / Sickle Cell Disease</i> | | | | |
| <i>MDS</i> | | | | |



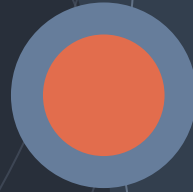
Our 7+ years of clinical experience with PYRUKYND® continues to validate the potential of PK activation across therapeutic areas

- 
- *We pioneered* PK activation clinical development with a differentiated approach to global development and community partnerships
 - *Long-term extension data* show durability of hemoglobin response, transfusion burden reduction, and improvement in ineffective erythropoiesis and iron overload in adults with PK deficiency
 - *Extension data* for PYRUKYND® highlight long-term safety profile and durable improvement in hemoglobin and markers of hemolysis in thalassemia patients for up to 72 weeks
 - Data from *investigator-led studies* of PYRUKYND® in adults with sickle cell disease underscore potential of mitapivat to improve clinically meaningful outcomes for patients, including anemia, hemolysis and sickling parameters

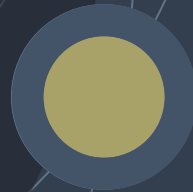




Clinical

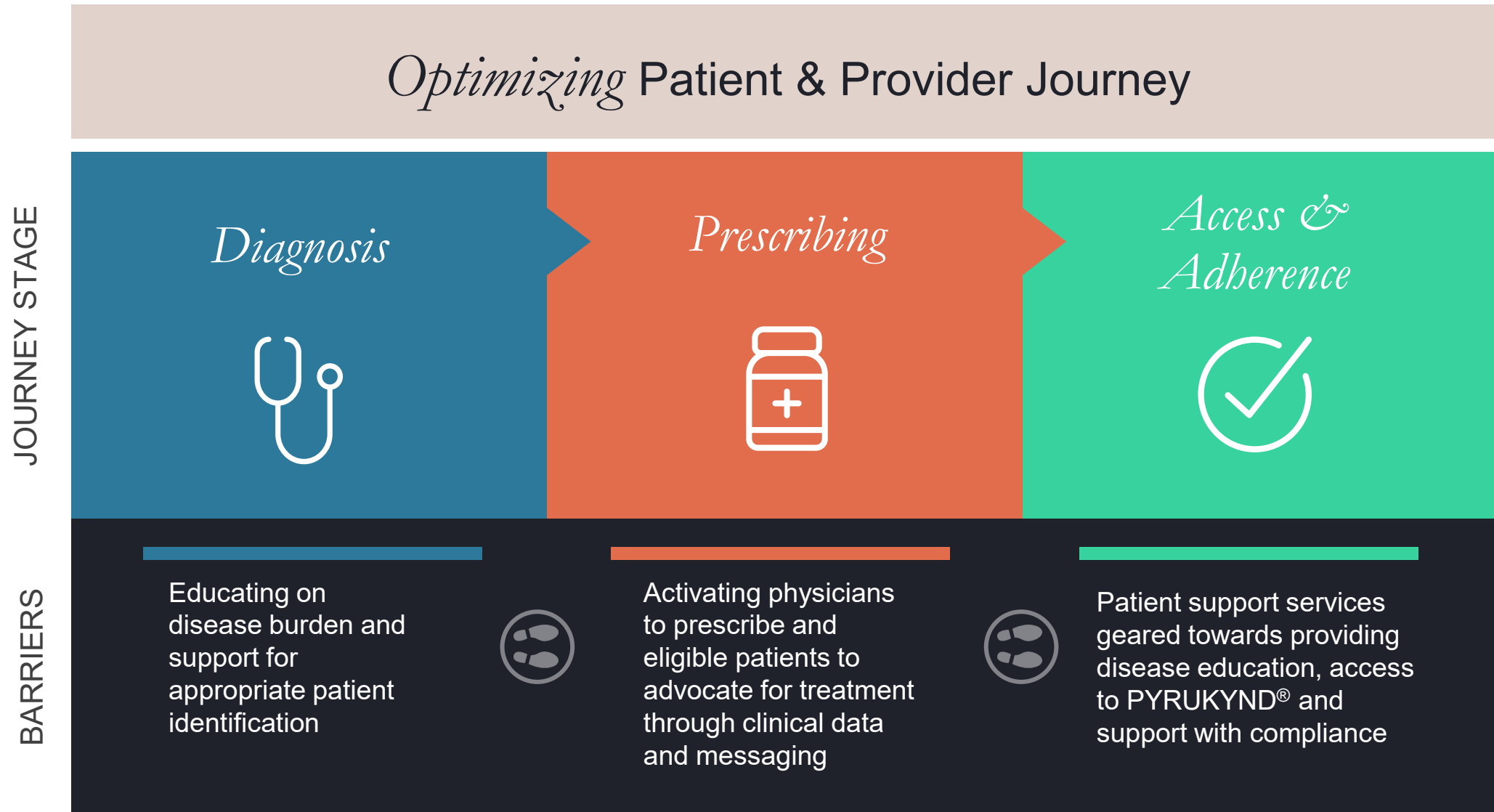


Commercial

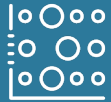


Financial

Commercial strategy to inform launch success



Educating physicians and patients on PYRUKYND®



Clinical data
and messaging
establish the *value*
of PYRUKYND®



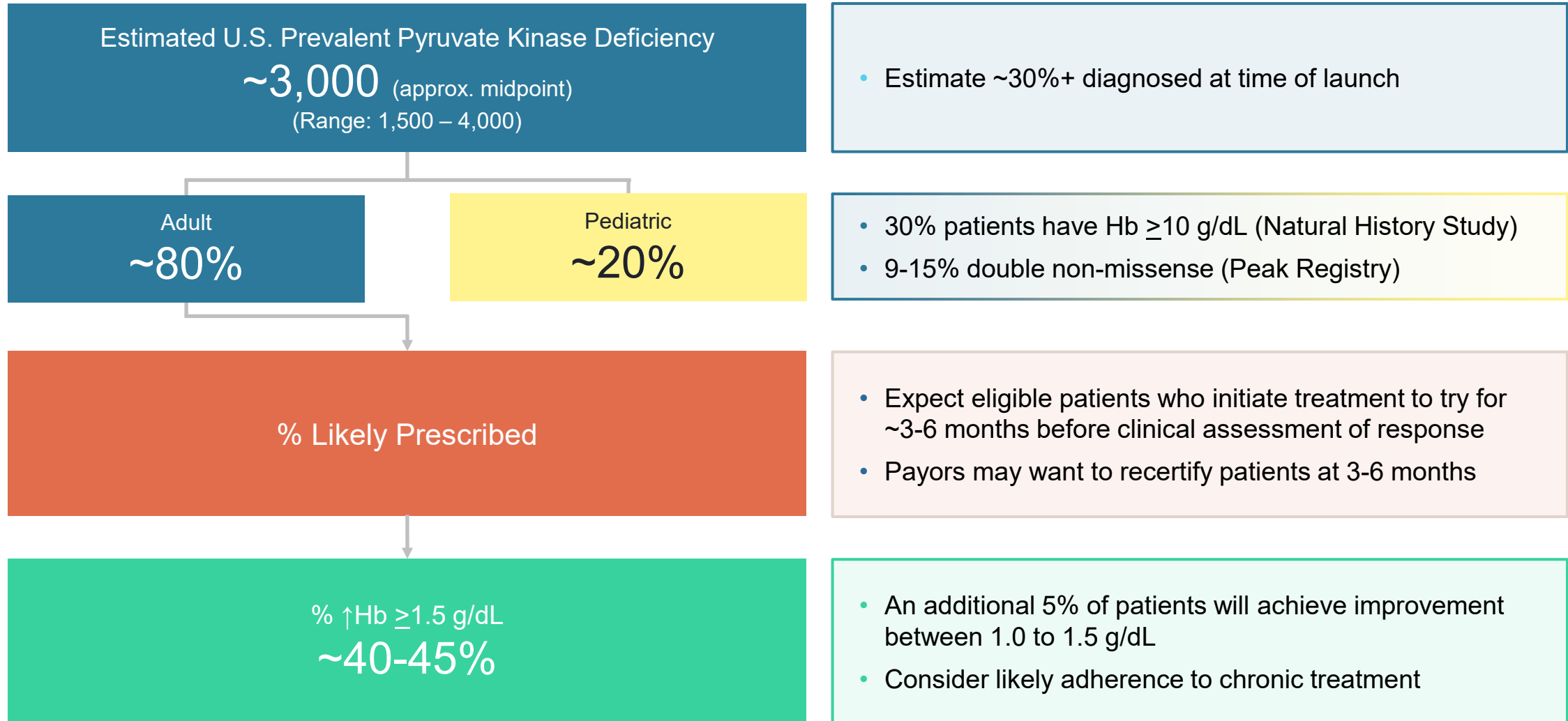
PYRUKYND® is the first and
only approved therapy *for*
patients with PK deficiency



PYRUKYND®
positioned to *change*
the course of chronic
hemolysis



Understanding U.S. commercial opportunity: State of play today



Key Details and Considerations

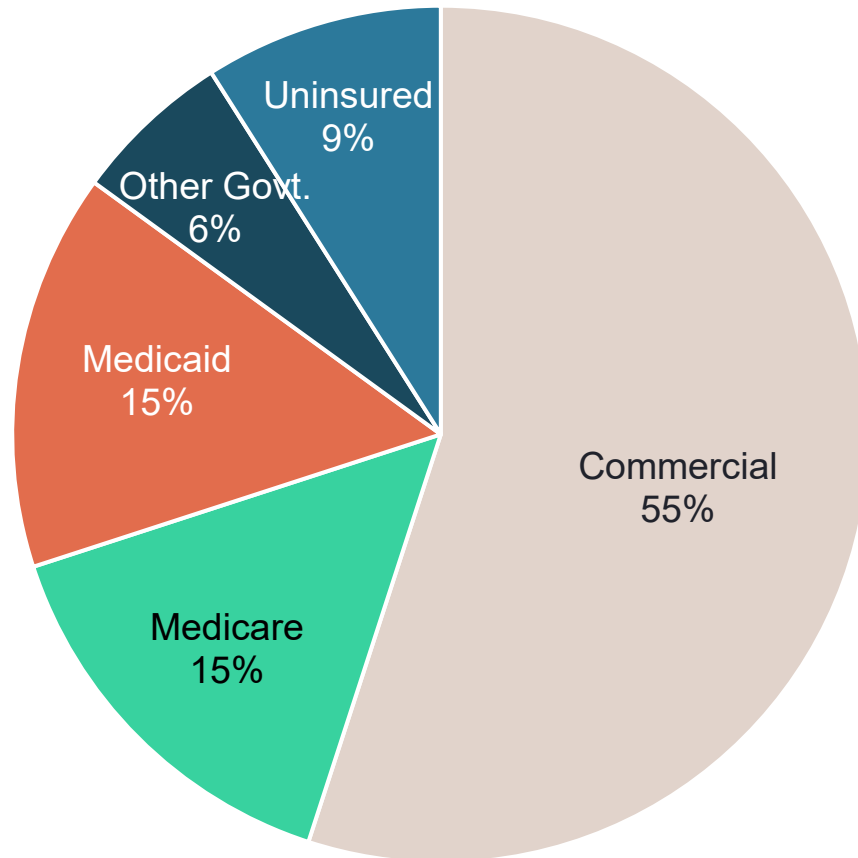


myAgios offers education, helps ensure access and support with compliance



Ensuring effective payer engagement to ensure access for eligible patients

Anticipated Payor Mix
(% Covered Lives)



Components of Effective Payor Dialogue

*Unmet
Patient Need*

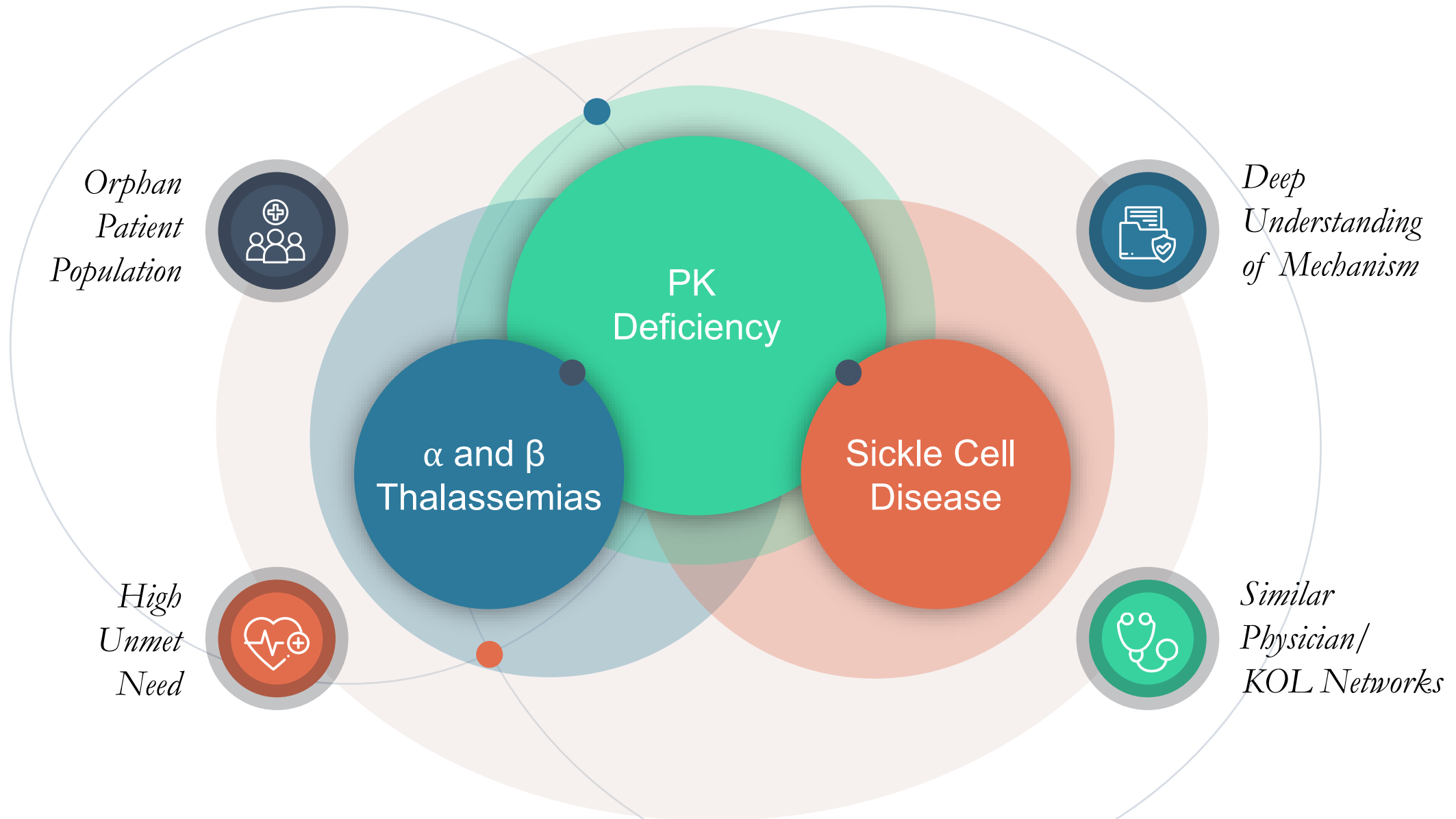
*Evidence of
Clinical Value*

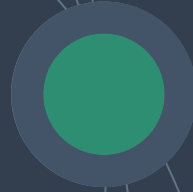
*Economic
Impact*

- Expect commercial payors to reach full formulary coverage by 1 year post-approval
 - Medical exception process in early months
- Medicare and Medicaid will lag
- Newly approved ICD-10 code will help with accelerating coverage decisions and patient profiling
- Expect routine payor requirements for initial and continued coverage

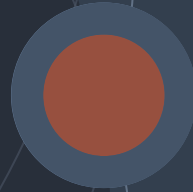


Research, clinical and commercial experience with PK deficiency positions Agios well for thalassemias and sickle cell disease





Clinical



Commercial



Financial

Fourth quarter and full year 2021 financial results¹

| Statement of Operations | Three Months Ended 12/31/21 | Three Months Ended 12/31/20 | Year Ended 12/31/21 | Year Ended 12/31/20 |
|--|-----------------------------|-----------------------------|---------------------|---------------------|
| Research & Development Expense | \$73.3M | \$59.4M | \$257.0M | \$220.8M |
| Selling, General & Administrative Expense | 31.5M | 25.9M | 121.4M | 115.1M |
| Gain on Sale of Oncology Business (TIBSOVO [®] Royalties) | 2.6M | -- | 6.6M | -- |

| Balance Sheet | 12/31/21 | 12/31/20 |
|--|----------|----------|
| Cash, Cash Equivalents and Marketable Securities | \$1.3B | \$670.5M |



Anticipated 2022 key milestones & priorities

FDA approval and launch of mitapivat in adults with PK deficiency

Initiate two Phase 3 studies of mitapivat in pediatric patients with PK deficiency

Initiate the SCD cohort of the AG-946 Phase 1 study

Enroll a meaningful portion of patients in the ENERGIZE and ENERGIZE-T thalassemia studies

mid-2022

in first half 2022

by year-end

Potential EMA approval of mitapivat in adults with PK deficiency

Complete enrollment in the Phase 2 portion of the RISE UP study of mitapivat in adults with SCD

Initiate the Phase 2a study of AG-946 in L-IR MDS

Continue to publish clinical and translational data supporting the utility of PK activators across key disease areas and elucidating the burden of disease for PK deficiency, thalassemia and sickle cell

by year-end

by year-end

by year-end





Q&A