# Agios to Highlight Pyruvate Kinase Activation Portfolio with New Data in Rare Blood Disorders at 30th EHA Congress

May 14, 2025

CAMBRIDGE, Mass., May 14, 2025 (GLOBE NEWSWIRE) -- Agios Pharmaceuticals, Inc. (Nasdaq: AGIO), a leader in cellular metabolism and pyruvate kinase (PK) activation pioneering therapies for rare diseases, today announced that new data on the company's PK activators, mitapivat and tebapivat, will be featured in oral and poster presentations during the 30th European Hematology Association (EHA) Congress (EHA 2025) in Milan, Italy, June 12-15, 2025.

"The clinical results and scientific insights being presented at EHA add to the robust body of efficacy and safety data demonstrating the promise of PK activation in treating both adults and children with rare blood disorders," said Sarah Gheuens, M.D., Ph.D., Chief Medical Officer and Head of R&D, Agios. "The presentations span serious conditions with limited or no treatment options, including sickle cell disease, thalassemia, PK deficiency, and myelodysplastic syndromes, offering meaningful results that highlight the therapeutic potential of mitapivat and tebapivat. We look forward to this important opportunity to share these new data and strengthen our collaboration with the global hematology community at EHA."

Select presentations and publications at EHA 2025 will include:

- An oral presentation of results from the ACTIVATE-KidsT Phase 3 study of mitapivat in children aged 1 to <18 years with PK deficiency who are regularly transfused. The study showed a clinically meaningful reduction in transfusion burden with mitapivat, with a higher proportion of patients achieving the primary endpoint of transfusion reduction response compared to placebo, though the prespecified statistical criterion was not met. Safety results were consistent with the safety profile for mitapivat previously observed in adults with PK deficiency who are regularly transfused. The ACTIVATE-KidsT study, along with the positive ACTIVATE-Kids Phase 3 trial, represents the successful execution of Agios' first pediatric clinical program.
- An oral presentation of long-term data from the investigator-led ESTIMATE Phase 2 trial, an open-label study investigating mitapivat in patients with sickle cell disease. In the study, mitapivat showed sustained efficacy and tolerability over three years, including improvements in anemia, hemolysis, painful vaso-occlusive crises, and markers of kidney damage.
- A poster presentation with preclinical data demonstrating that tebapivat reduced red blood cell sickling and adhesion in blood samples from sickle cell disease patients, highlighting its therapeutic potential in this patient population.
- A preclinical publication examining expression patterns of PKM2, an isoform (or variant) of the PK enzyme. The study found that, compared with healthy controls, patients with myelodysplastic syndromes (MDS) have significantly reduced PKM2 expression in CD34+ hematopoietic stem cells, which may be implicated in the development of MDS. These findings further support the ongoing investigation of tebapivat in lower-risk MDS, as it activates PKM2 in addition to PKR (the PK isoform found in red blood cells).

In total, 14 presentations and publications led by Agios and external collaborators will be shared at EHA 2025.

**EHA 2025 Accepted Abstracts**

| Title | Number | Date/Time | Presenter | Acceptance |
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| **Thalassemia** | | | | |
| Overall survival and morbidity among adults with thalassemia in England: A retrospective analysis using routinely collected healthcare data from 2008 to 2020 | PS2183 | Saturday, June 14, 2025, 6:30 - 7:30 PM CEST | Khaled M. Musallam, M.D., Ph.D., Burjeel Medical City, Abu Dhabi, United Arab Emirates | Poster |
| Impact of non-transfusion-dependent thalassemia on adult patients' health-related quality of life and work productivity: A multi-region real-world survey | PF1192 | Friday, June 13, 2025, 6:30 - 7:30 PM CEST | Khaled M. Musallam, M.D., Ph.D., Burjeel Medical City, Abu Dhabi, United Arab Emirates | Poster |
| ENERGIZE-T/ENERGIZE: Roxyscan assesses pyruvate kinase activator's effect on oxidative stress sensitivity in β-thalassemia patients | PS2192 | Saturday, June 14, 2025, 6:30 - 7:30 PM CEST | Eduard J. van Beers, M.D., Ph.D., University Medical Center of Utrecht, Netherlands | Poster |
| Understanding health literacy among patients with thalassemia: Initial key learnings from a global patient survey by the Thalassemia Advocacy Advisory Council | PB3545 | N/A | Maria Domenica Cappellini, M.D., University of Milan, Italy | Publication |

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| **Sickle Cell Disease** | | | | |
| Three-year safety, efficacy, and renal outcomes of mitapivat treatment in sickle cell disease: Results from a phase 2, open-label study | S299 | Thursday, June 12, 2025, 5:00 - 6:15 PM CEST | Geoffrey Kuppens, University Medical Center Utrecht, Netherlands | Oral |
| Patient-reported vaso-occlusive events, their associated pain severity, and impact of sickle cell disease on fatigue and quality of life: A real-world survey in the United States | PS2179 | Saturday, June 14, 2025, 6:30 - 7:30 PM CEST | Oladipo Cole, M.D., University of Connecticut Health Center | Poster |
| Optimizing hydroxyurea therapy in sickle cell disease: Insights from metabolite detection, treatment response and clinical outcomes* | PF1176 | Friday, June 13, 2025, 6:30 - 7:30 PM CEST | Sigrid van der Veen, University Medical Center Utrecht, Netherlands | Poster |
| Ex-vivo activation of pyruvate kinase by tebapivat reduces sickling and red blood cell adhesion in sickle cell disease | PS2170 | Saturday, June 14, 2025, 6:30 - 7:30 PM CEST | Minke Rab, M.D., Ph.D., University Medical Center Utrecht, Netherlands | Poster |
| **Pyruvate Kinase Deficiency** | | | | |
| Efficacy and safety of mitapivat in pediatric patients with pyruvate kinase deficiency who are regularly transfused: Results from the phase 3 randomized global placebo-controlled ACTIVATE-KidsT trial | S296 | Thursday, June 12, 2025, 5:00 - 6:15 PM CEST | Rachael F. Grace, M.D., MMSc; Dana-Farber/Boston Children's Cancer and Blood Disorder Center, Harvard Medical School | Oral |
| Cardiac magnetic resonance observations in a patient with pyruvate kinase deficiency and beta-thalassemia trait treated with mitapivat – a case report | PB3570 | N/A | Paolo Ricchi, M.D., Ph.D., Center for Rare Red Blood Cell Diseases, AORN A. Cardarelli, Naples, Italy | Publication |
| **Myelodysplastic Syndromes** | | | | |
| PKM and PKLR mRNA expression in CD34+ cells derived from patients with myelodysplastic syndromes | PB2748 | N/A | Erin Tsai, M.S., Agios Pharmaceuticals | Publication |
| **Other** | | | | |
| SATISFY: Mitapivat in adults with erythrocyte membranopathies and congenital dyserythropoietic anemia type II: A EuroBloodNet, multicenter, single-arm, phase 2 study | S297 | Thursday, June 12, 2025, 5:00 - 6:15 PM CEST | Thomas Doeven, M.D., University Medical Center Utrecht, Netherlands | Oral |
| Red blood cell age distribution and metabolic features in hereditary spherocytosis, hereditary xerocytosis and congenital dyserythropoietic anemia – baseline results of exploratory analysis from the SATISFY study | PS2199 | Saturday, June 14, 2025, 6:30 - 7:30 PM CEST | Richard van Wijk, Ph.D., University Medical Center Utrecht, Netherlands | Poster |
| PIEZO1 gain-of-function drives glycolytic imbalance in late-stage erythropoiesis: The potential of mitapivat therapy in dehydrated hereditary stomatocytosis | PS2201 | Saturday, June 14, 2025, 6:30 - 7:30 PM CEST | Barbara Eleni Rosato, Ph.D., University of Naples, Italy | Poster |

**This investigator-sponsored trial is part of a larger project funded by Agios*

Please refer to the EHA 2025 online program for full session details and data presentation listings, and visit the Agios booth (#C04) onsite.

**About PYRUKYND® (mitapivat)**
**U.S. INDICATION**
PYRUKYND is a pyruvate kinase activator indicated for the treatment of hemolytic anemia in adults with pyruvate kinase (PK) deficiency.

**U.S. IMPORTANT SAFETY INFORMATION**
**Acute Hemolysis:** Acute hemolysis with subsequent anemia has been observed following abrupt interruption or discontinuation of PYRUKYND in a dose-ranging study. Avoid abruptly discontinuing PYRUKYND. Gradually taper the dose of PYRUKYND to discontinue treatment if possible. When discontinuing treatment, monitor patients for signs of acute hemolysis and anemia including jaundice, scleral icterus, dark urine, dizziness, confusion, fatigue, or shortness of breath.

**Hepatocellular Injury in Another Condition:** In patients with another condition treated with PYRUKYND at a higher dose than that recommended for patients with PK deficiency, liver injury has been observed. These events were characterized by a time to onset within the first 6 months of treatment with peak elevations of alanine aminotransferase of >5× upper limit of normal (ULN) with or without jaundice. All patients discontinued treatment with PYRUKYND, and these events improved upon treatment discontinuation.

Obtain liver tests prior to the initiation of PYRUKYND and monthly thereafter for the first 6 months and as clinically indicated. Interrupt PYRUKYND if clinically significant increases in liver tests are observed or alanine aminotransferase is >5x ULN. Discontinue PYRUKYND if hepatic injury due to PYRUKYND is suspected.

**Adverse Reactions:** The most common adverse reactions including laboratory abnormalities (≥10%) in patients with PK deficiency were estrone decreased (males), increased urate, back pain, estradiol decreased (males), and arthralgia.

**Drug Interactions:**

- Strong CYP3A Inhibitors and Inducers: Avoid concomitant use.
- Moderate CYP3A Inhibitors: Do not titrate PYRUKYND beyond 20 mg twice daily.
- Moderate CYP3A Inducers: Consider alternatives that are not moderate inducers. If there are no alternatives, adjust PYRUKYND dosage.
- Sensitive CYP3A, CYP2B6, CYP2C Substrates Including Hormonal Contraceptives: Avoid concomitant use with substrates that have narrow therapeutic index.
- UGT1A1 Substrates: Avoid concomitant use with substrates that have narrow therapeutic index.
- P-gp Substrates: Avoid concomitant use with substrates that have narrow therapeutic index.

**Hepatic Impairment:** Avoid use of PYRUKYND in patients with moderate and severe hepatic impairment.

**Please see full Prescribing Information for PYRUKYND.**

**About Agios**
Agios is the pioneering leader in PK activation and is dedicated to developing and delivering transformative therapies for patients living with rare diseases. In the U.S., Agios markets a first-in-class pyruvate kinase (PK) activator for adults with PK deficiency, the first disease-modifying therapy for this rare, lifelong, debilitating hemolytic anemia. Building on the company's deep scientific expertise in classical hematology and leadership in the field of cellular metabolism and rare hematologic diseases, Agios is advancing a robust clinical pipeline of investigational medicines with programs in alpha- and beta-thalassemia, sickle cell disease, pediatric PK deficiency, myelodysplastic syndromes (MDS)-associated anemia and phenylketonuria (PKU). In addition to its clinical pipeline, Agios is advancing a preclinical TMPRSS6 siRNA as a potential treatment for polycythemia vera. For more information, please visit the company's website at www.agios.com.

**Cautionary Note Regarding Forward-Looking Statements**
This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Such forward-looking statements include those regarding the potential benefits of PYRUKYND® (mitapivat) and tebapivat; Agios' plans regarding future data presentations; 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. For example, there can be no guarantee that any product candidate Agios 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 press release 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 impact of pandemics or other public health emergencies to 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 current or future approved products, and launching, marketing and selling current or 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, 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 establish and maintain key collaborations; uncertainty regarding any royalty payments related to the sale of its oncology business or any milestone or royalty payments related to its in-licensing of TMPRSS6 siRNA, and the uncertainty of the timing of any such payments; uncertainty of the results and effectiveness of the use of Agios' cash and cash equivalents; 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 press release 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.

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