

**Press Contact:** Kathleen Reynolds  
CooperKatz for Paige.AI  
917-595-3031 / [kreynolds@cooperkatz.com](mailto:kreynolds@cooperkatz.com)

## **Paige.AI Created to Transform Cancer Diagnosis and Treatment by Applying Artificial Intelligence to Pathology**

*Backed by \$25 Million Equity Investment and Exclusive Data Licensing Agreement with Memorial Sloan Kettering Cancer Center*

**NEW YORK, NEW YORK February 5, 2018** – [Paige.AI](#), a new company focused on revolutionizing clinical diagnosis and treatment in oncology through use of artificial intelligence (AI), launches today as it announces two major milestones:

1. **Paige.AI signed a comprehensive license agreement with [Memorial Sloan Kettering Cancer Center \(MSK\)](#)** to gain exclusive access to MSK's intellectual property in the field of computational pathology, as well as exclusive rights to MSK's library of 25 million pathology slides. This de-identified data set represents one of the world's largest tumor pathology archives and will be invaluable to Paige.AI as it builds out a suite of AI applications in pathology. MSK began digitizing pathology slides five years ago; Paige.AI has exclusive access to these in the field of computational pathology and will expand these efforts with a commitment to digitize millions of additional archived slides in the next few years. All licensed digital slides are accompanied by de-identified pathologic and clinical annotation, as well as anonymized genomic sequencing results.
2. **Paige.AI closed on a \$25 million Series A financing round**, giving the company sufficient capital to invest in building the world's leading offering in digital and computational pathology. The Series A is led by a number of legendary investors, including Jim Breyer, founder and chief executive officer of Breyer Capital, a premier global venture capital firm based in Menlo Park, California.

Pathology is the cornerstone of most cancer diagnoses, yet most pathologic diagnoses rely on manual, subjective processes developed more than a century ago. Currently, highly-trained pathologists interpret numerous individual glass slides using a microscope to analyze tissues and cells. For instance, there can be as many as 60 slides in one breast biopsy, though often only a few are relevant to the diagnosis. The manual nature of this work is inherently inefficient and can contribute to diagnostic variability. Technology to convert glass slides to digital images has existed for over a decade, but it has not been broadly adopted because digitization alone does not allow pathologists to improve workflow.

Computational pathology will provide the missing link in the adoption of digital pathology, moving this vital field forward with support tools to help pathologists make decisions with greater speed, accuracy, objectivity and reproducibility – all at a lower cost. Computational pathology is a complete, probabilistic treatment of scientific and clinical workflows, combining experimental design, statistical pattern recognition and survival analysis for a unified framework in answering scientific and clinical questions. The outcome: pathologists' time will shift from *compiling* data – literally counting cell nuclei and measuring tumors point-to-point – to focusing on *interpreting* data and detailing the implications for a patient's diagnosis and treatment planning.

The company aims to catalyze a fundamental medical AI paradigm shift, transforming pathology and diagnostics from a qualitative to a more rigorous, quantitative discipline.

Paige.AI enters the market with three unique strengths, making it the first company in computational pathology capable of producing clinically-validated AI applications:

1. **Data at an entirely new scale.** Successful AI relies on a massive amount of data to train robust, reproducible algorithms. Paige.AI's exclusive license with MSK gives it access to one of the world's largest tumor pathology archives, spanning six decades and encompassing millions of slides.

2. **Unparalleled clinical domain expertise and annotations.** Raw image data is not enough to excel in complex pathology tasks. Successful AI is contingent on the highest quality (clinician-generated) domain-specific annotations. Paige.AI is innovating the annotation process, not only by developing dedicated annotation tools, but also by incorporating de-identified clinical, treatment, genomic and survival data into comprehensive deep learning models.

3. **An Exceptional AI Team.** Paige.AI's machine learning team comprises PhDs with expertise in deep learning, software engineers and high-performance computation experts. The company was founded and is led by the founding father of Computational Pathology, Thomas Fuchs, PhD, who is also the director of Computational Pathology in The Warren Alpert Center for Digital and Computational Pathology at Memorial Sloan Kettering, and a professor at the Weill Cornell Graduate School of Medical Sciences, where he teaches machine learning. Dr. Fuchs published the first Computational Pathology paper in [2008](#), a review of the field in [2011](#) and more than 90 publications in machine learning and medicine.

Before joining MSK, Dr. Fuchs worked on the Mars Rover and autonomous space exploration at NASA's Jet Propulsion Laboratory. Dr. Fuchs notes that some of the same algorithms used to identify terrain on Mars are useful in differentiating cancerous from benign tissues on slides. He sees Paige.AI as a decision support system – not replacement – for current pathologists.

"If you're teaching a self-driving car on a closed course, anyone can label a tree or a sign so the system can recognize it," said Dr. Fuchs. "But imagine the additional guidance that car would require to navigate New York City. The same is true in a specialized medical domain like oncology. You must have both massive data sets and specialists with decades of training to ensure that the computer models are up to difficult tasks. We will enable computational pathology to expand at the scale necessary to achieve intelligent, quantitative clinical models – and facilitate widespread adoption of digital pathology," Fuchs added.

Series A investors see the transformational strategic opportunity in Paige.AI, as the company reduces time-consuming manual tasks and provides immediate operational and clinical value.

"Paige.AI is poised to become a powerhouse in computational pathology and an undisputed leader among thousands of healthcare AI competitors," said Jim Breyer. "Today, we take a major step forward in harnessing machine learning and more fully realizing its promise for cancer diagnosis and treatment."

"Patients deserve and need an accurate diagnosis as quickly as possible, yet our current methods are time-consuming, expensive and subjective," said David Klimstra, MD, co-founder of Paige.AI and chairman of the Department of Pathology at MSK. "The field is ripe for innovation

and we are confident that Paige.AI will aid pathologists in detecting disease better and faster. With computational pathology, pathologists can redirect their efforts toward more sophisticated tasks, such as integrating histologic findings with other diagnostic analyses.”

Paige.AI will develop computational solutions across diagnostic pathology, initially focusing on clinical applications in breast, prostate and other major cancers. The company also expects to partner with other leading academic medical centers, commercial labs and pharmaceutical companies as it develops a full suite of AI applications in pathology.

Paige.AI is headquartered in Manhattan, to link closely with the clinical and pathology experts at MSK and the innovative AI community in Silicon Alley.

For more information, please visit <http://Paige.AI>.

### **About Paige.AI**

Paige.AI was founded to revolutionize pathology and strengthen this lynchpin of medical diagnostics with quantitative, computational technology, fusing machine learning and human expertise. Key elements of Paige.AI include: **P**athology: The company aims to revolutionize pathology in the future, while making it immediately less manual and subjective. **A**I: Artificial Intelligence is at the core of the company’s mission. **G**uidance: Robust clinical decision support will guide experts to focus on actionable pathologic findings, trained by diagnostic pathology experts and cancer researchers. **E**ngine: Paige.AI’s engine is a high-performance compute cluster with hundreds of graphics processing units (GPUs).