

Celbridge Science – Providing an AI Analytic Tool and Predictive Diagnosis Application for Healthcare Data to Optimize Patient Outcomes



Patrick Hogan
Chief Executive Officer

Celbridge Science

Interview conducted by:
Lynn Fosse, Senior Editor
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CEOCFO: *Mr. Hogan, what is Celbridge Science?*

Mr. Hogan: Celbridge Science is an AI analytic solution provider for healthcare. Our core solution is an NLP (Natural Language Processing) AI tool that can quickly be used by any entity. We also provide a Predictive Diagnosis application (Currently being utilized by Veteran clinics to identify Post Traumatic Stress Disorder & Depression) that can identify disease states while they are still asymptomatic for a patient. Celbridge Science partners with our customers to deliver analytic tools that support their

clinical mission. It is a very dynamic growth period for us as we are a young organization that is continually evolving to deliver greater analytic value to the global healthcare industry.

CEOCFO: *How engrained is AI in healthcare today? Where does it stand in the industry?*

Mr. Hogan: AI & ML (Machine Learning) penetration and utilization is very varied across healthcare. The urgency to identify capability is very high across all organizations but true acceptance/utilization of AI & ML really depends upon the analytic sophistication level of the organization. We find organizations are all across the sophistication spectrum. Some entities are just beginning to experiment with the possibility of using data as a tool, while other institutions are using AI and ML as a competitive capability to provide better care. We deal with some of the top hospitals in the world, and they are using AI in amazing ways! Our clients are using AI & ML for predictive diagnosis, digitizing pathology, or cancer care. It is a phenomenal time to be in this space as our mission to facilitate caregivers' ability to take advantage of the power of AI and ML is extremely well suited to the market needs of our clients.

CEOCFO: *How do you know when you have critical mass, when you have enough AI to make a solution viable?*

Mr. Hogan: Celbridge Science views the achievement of critical mass when the metrics established for care performance are achieved. As an example, our Predictive Diagnosis tool (PDT) for veterans is completely integrated into the clinics EHR (Electronic Health Record System). The Celbridge Science PDT delivers care notes instantaneously to the caregiver alerting them of probabilities of condition states that require investigation. We developed an algorithm focused on depression and post-traumatic stress disorder to address this debilitating condition that impacts one-third of all veterans. One of the challenges in diagnosing this condition is that veterans do not want to communicate this experience. Our tool assists in proving probing questions for triaging, and eliciting information that could help a patient who is suffering in silence.

CEOCFO: *What led you to the medical side of AI?*

Mr. Hogan: Celbridge Science was initially formed to provide solutions to medical care providers. We are committed to utilize *AI to transform medical outcomes and improve the productivity and efficiency of care delivery*. We are at the nexus of information being available and now suddenly being inexpensive enough to totally utilize and disseminate within an organization. Celbridge Science delivers the ability to coordinate all caregiver data so clinicians can make informed decisions to optimize patient care.



CEOCFO: *Do you have some standard offerings that you might offer a certain department in the hospital, no matter where it is, or is everything customized? What are your range of services?*

Mr. Hogan: We do have two primary solutions that focus on the whole care continuum. In many of our institutions. The first is an AI analytic solution that is extremely easy to use. Our AI data analytics solution works in SQL (Structured Query Language), and we use an AI algorithm to simplify the query process. The tool democratizes data and allows every caregiver to be entrusted with the power of impactful clinical care data. What we find is a lot of healthcare institutions have an enormous investment in their EHR and this limits their ability to leverage other technology applications. We resolve this dilemma by bringing EHR Data simply into SQL tables and then providing an AI tool with NLP to empower their clinical staff to understand their data.

Celbridge Science's AI Analytic Tool allows health systems to use AI to query critical healthcare data without expensive licenses or dedicated staff, and we allow clinicians in every care situation to be able to find critical facts no matter what their data sophistication. Our caregivers can just ask a question, such as, "how many of my patients have type 1 diabetes with a BMI over 35." It also can be a financial question, "How much do I have outstanding on my receivables," and all these questions can simply be written in simple prose and then quickly delivered.

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Our second analytic application is a predictive diagnosis application. This tool allows the identification of a disease state while it is still asymptomatic. The system delivers care notes instantaneously to the caregiver alerting them of potential probabilities of comorbidities requiring investigation.

CEOCFO: *Don't most institutions want to leverage their data more effectively, but do not know where to start?*

Mr. Hogan: Yes, the data is there but most institutions still use manual analysis and reporting. The first place to start is looking at what data is available across the organization.

CEOCFO: *When you are working with a client and they tell you what they want, what do you need to do to structure that on your end?*

Mr. Hogan: The first step in the process is to understand the institution's key metrics and analysis. The second step is to identify all data points that are critical in supporting the analysis and what key reporting is required to make the timely decisions. Celbridge Science focuses on both delivering analytic value and enhancing an organization's ability to build competencies in AI and ML. We invest a great deal of work both on the educational and change management aspect of data capability. We layer in advanced training and change management into the process. As an example, we have a program on learning machine learning, and artificial intelligence for clinicians, so that caregivers can leverage the power of AI in all aspects of their job.



CEOCFO: *How do you reach out to let the world know what you have? How would people find Celbridge?*

Mr. Hogan: To communicate our solutions and capabilities Celbridge Science offers monthly Webinars focused on sharing our AI capabilities while also sharing industry best practice and knowledge. Our organization believes that collaboration is key for true healthcare data transformation and our AI Webinars seek to educate and enhance our clients and overall industry knowledge.

Our message...data sophistication is a journey and building competencies requires strategic planning and focus. A critical aspect of AI and data management is the control environment that exists for this critical information.

Celbridge Science provides support to establish AI governance frameworks which help organizations implement, govern, monitor, and mature AI adoption. Our Data Security group enhances the four core components of AI governance which are: definitions, data inventory, policy/standards, and governance/control framework.

CEOCFO: *How is business?*

Mr. Hogan: We are growing very rapidly, and it is very exciting to be a large part of the amazing AI healthcare transformation which is weeping the globe. AI and ML for healthcare is a global phenomenon that is still at its emerging stage. We gauge our business, on the solutions delivered, and on the lives that we change. Every patient that we can deliver extra care to is a huge victory for us. Our mission is to utilize AI and ML to enhance and standardize best practice care. It is a phenomenal time to be engaged in this space.

CEOCFO: *Would you tell us about your recognition by CIO Application?*

Mr. Hogan: We have been recognized by several entities in terms of providing caregiver solutions. Celbridge Science is blessed with a great staff and partners who are completely aligned with our mission to assist caregivers and clinicians in providing the highest possible care. We are lucky that we have been recognized for this special journey. The end mission for us is empowering the caregiver with AI. We are grateful for the opportunity and all the organizations that support us in our journey.

CEOCFO: *Are you seeking investment, partnerships, or funding as you continue to grow Celbridge Science?*

Mr. Hogan: We are always open to new opportunities. We have been very successful as a self-funded organization, but as we continue to expand and explore new opportunities, we are keeping a diligent focus on our capital structure. The reality in AI and ML space is that every clinical care organization around the globe is in the process or will in the next two years of choosing an artificial intelligence/machine learning partner. Celbridge Science seeks to be the best partner available for these organizations.