

# Nucleus Thriving at the Center of the Medical Art Genre

“Nucleus,” a Latin derivative of the word “kernel,” from the Old English term “cyrnel,” within the specialized medical science of neuroanatomy, is defined (by Wikipedia) as “a central nervous system structure that is composed mainly of gray matter, and which acts as a hub or transit point for electrical signals in a single neural subsystem.” It’s centrally located gray matter, operating in a mini-system, which emits and absorbs electrical impulses.

Similarly, a distinctively different medical art creation and distribution company called Nucleus Medical Art, Inc., located in Kennesaw, Georgia, is a “hub”—and an energized flurry—of clinical creativity generating some of the most highly respected digital medical art in the business. At the “center” of Nucleus pulses a synergistic bundle of clinical and educational commitment, devotion to excellence and venerated experience that have elevated its status to among the elite in its industry. Just check Alexa.com for proof positive of its online popularity and genre prowess.

“The thing that elevates Nucleus in the realm of online popularity is our keyworded database of 15,000-plus medical illustrations and animations,” says Nucleus President and Co-founder Keith Pavlik, who started the company with CEO Ron Collins back in November 1996. “We have invested countless hours and millions of dollars into this proprietary technology. It is the cornerstone of our product and service business and receives millions of page views monthly, which brings in numerous prospective clients each day.”



As for the factors that help boost Nucleus Medical Art above its competition, one distinction is particularly notable: The company requires that all of its medical illustrators and animators—of which there currently are 16—have collegiate medical training. Currently, all such creatives have undergraduate degrees in science, and nearly all have such graduate degrees. And the list of its staff alma maters includes such prestigious institutions as the Johns Hopkins University School of Medicine (Baltimore, MD), the University of Texas Southwestern Medical Center (Dallas, TX) and the Rochester Institute of Technology (Rochester, NY).

**“The company requires that all of its medical illustrators and animators—of which there currently are 16—have collegiate medical training.”**

“Those who do not have graduate degrees have at least 10 years’ professional experience in the field,” explains Collins, whose executive work at Nucleus was preceded by creative direction at an anatomical software company called ADAM. “The core science curriculum of the medical illustrator is very rigorous and includes medical school anatomy, histology, embryology, neuroanatomy, and pathology. In addition, students must observe and illustrate/animate surgical procedures as part of their art projects.” Before co-founding Nucleus, Pavlik was an independent multimedia developer working under contract with ADAM.

Within five months after officially starting the company, Nucleus had expanded from 2 to 10 employees. Today, Nucleus comprises 30, following the addition of three more crew members during recent months.

Another of those interesting ingredients in the Nucleus Medical Art concoction is its mission. It’s not just about bucks . . . but excellence.

“At Nucleus Medical Art, our mission is to raise health science literacy worldwide using our training as medical visual communicators,” says Collins, who has a BFA from

the University of Tennessee (Knoxville) and a MS from the Medical College of Georgia (Augusta), his undergraduate focus having been on medical illustration. "We believe medical images provide a universal foundation for understanding health and science, and that all health and science information should include images."

A few glimpses at the Nucleus demo reel testify to its commitment to superior quality in a very specialized and demanding market.

But it hasn't been an easy road to Nucleus' present success. Beyond Pavlik's and Collins' arduous personal career journeys, the company, itself, has seen lean days—as well as massive expansion.

Nucleus made the leap from exclusively two-dimensional digital artwork to the addition of 3D in the late 1990's, then upgraded its platform in May 2005 by hiring current Director of Animation Thomas Brown, who leads a team of four animators.

"We had been interested in having 3D visuals in our product line since 1996," says Pavlik, "but did not actually hire a 3D animator until 1999. For a long period of time, we made very little progress until we hired Thomas Brown. Thomas has been the key driver of our new focus on 3D animations, and has built an incredible team around himself."

A 1995 graduate of the Medical College of Georgia's Medical Illustrators Masters program, Brown began working for Nucleus immediately upon his graduation. He also received his BFA in Interdisciplinary Studies from the University of Georgia (Athens) Scientific Illustration program.

Nucleus Medical Art's work spans the gamut of medical systems, comprising premium-quality 2D illustrations, 3D stills and animation, interactive multimedia, and even physical anatomical models: all bodily systems (cardiovascular, respiratory, etc.); anatomy and physiology; cells and tissues; and specific bodily regions such as foot/ankle; head/neck; shoulder; etc.

In addition, Nucleus also produces tutorial medical-device-operation material for clinical clients needing to learn, implement and use such products.

Among the company's client types are health-care websites, institutions, Internet-solutions companies and health-care professionals. Touted amongst its clientele are such renowned companies as DiscoveryHealth.com, GlaxoSmithCline, Merk Medco, Pfizer, WiredMD and Yahoo!

As for Nucleus' marketing, Collins' and Pavlik's business brilliance was manifested—particularly in light of MLI's acquisition—in a dual-pronged strategy.

"Nucleus is our business unit/brand serving the healthcare market, including publishers, medical device manufacturers, pharmaceutical companies, hospitals, etc.," explains Collins. "Medical Legal Art (MLA) is a business unit/brand for the legal market, including lawyers, insurance companies, paralegals, and legal nurse consultants."

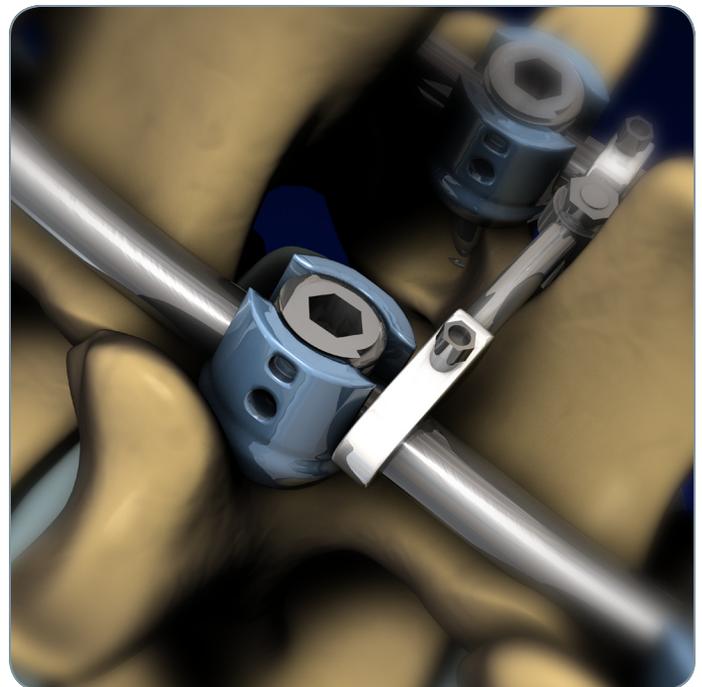
What about the true value of the creative content-development staff, to complement superb business acumen?

"Ten years later," says Collins, referring to the acquisition of MLI, "Brian's team still accounts for nearly 50 percent of our revenue and over 98 percent of the new artwork added to our 15,000-plus image database."

Nucleus Medical Art perseveres to develop the most comprehensive collection of medical illustrations and animations available online, and to license them to markets ranging from education to hospitals, to corporations. Furthermore, Nucleus intends to assemble the world's most-productive team of medical illustrators and animators.

"We believe the future of our profession, and the success of our company, will be tied to our ability to do the following: increase the depth of our scientific knowledge in molecular biology, genetics, and biotechnology, and our ability to increase our technical skills in 3D animation so that we can create more content faster," says Collins.

Sounds like they're well on their way.



Ed Scott is a freelance writer and computer graphics professional residing in Missouri, and the owner of MediaMajik. He can be reached at [info@mediamajik.biz](mailto:info@mediamajik.biz).