

Medical Illustrator

Medical illustrators specialize in the visual transformation, display, and communication of scientific information. Their graduate level training in biomedical science, art, design, visual technology, education, and communication enables them to understand and visualize scientific data and concepts to teach the general public and professionals in the fields of health care, research, pharmaceuticals, biotechnology, and demonstrative evidence. Medical illustrations appear in medical textbooks, medical advertisements, professional journals, instructional animations, computer-assisted learning programs, scientific exhibits, lecture presentations, general magazines, and courtroom presentations. Depending on the intended use, medical illustrations can be highly realistic and anatomically precise or they can be thematic, interpretive, abstract, or even wildly conceptual. Although medical illustration is commonly seen in print and electronic media, medical illustrators also work in three dimensions, creating anatomical teaching models, models for simulated medical procedures, and prosthetic parts for patients.



History

Formal educational programs for the medical illustrator date back to the early 1900s, with Max Broedel's school at Johns Hopkins University. The Association of Medical Illustrators (AMI) was established in 1945. Under the auspices of the AMI, standards were developed, with accredited medical illustration programs in existence in the United States since 1967.

In 1986, the AMI expressed a desire to have educational programs for the medical illustrator accredited by the Committee on Allied Health Education and Accreditation (CAHEA) of the AMA. This desire stemmed from the recognition that professional medical illustrator programs were more closely related to allied health than to the visual arts.

An ad hoc committee on outside accreditation of the AMI worked with AMA staff to modify the existing *Standards* to comply with the format recommended by the CAHEA. The resulting *Essentials and Guidelines of an Accredited Educational Program for the Medical Illustrator* was adopted by the AMI and the AMA Council on Medical Education (CME) in 1987. Today, the *Standards* are adopted by CAAHEP in collaboration with the AMI.



Career Description

Medical illustrators work closely with clients to interpret their needs and create visual solutions for them through effective problem solving. While some medical illustrators specialize in a single art medium or work primarily for one medical specialty, the majority handle an ever-changing variety of assignments from different clients, involving a variety of biomedical content, and requiring a variety of media solutions. In addition to design and production roles, medical illustrators may function as consultants, art directors, supervisors, and administrators within the field of biocommunications.



Employment Characteristics

Many medical illustrators are employed in medical schools and large medical centers that have teaching and research programs. Other medical artists are employed by hospitals, clinics, dental schools, or schools of

veterinary medicine. Some institutional medical illustrators work alone, whereas, others are part of large multimedia departments. Other medical illustrators choose to target specific markets such as medical publishers, pharmaceutical companies, advertising agencies, animation studios, physicians, or attorneys. Some work independently on a freelance basis; others set up small companies designed to provide illustration services to various targeted markets.

The employment outlook for medical illustrators is good. This is in part due to the relatively few medical illustrators who graduate each year, and in part due to the growth in medical research that continually reveals new treatments and technologies that require medical illustrations. A growing demand by patients to better understand their own bodies and medical options has expanded the need for medical illustration aimed at the lay public. In addition, increased need for medical illustrations and models to educate juries during courtroom presentations has expanded the medical-legal subspecialty of medical illustration.



Salary

Earnings vary according to 1) the experience and ability of the artist, 2) the type of work, and 3) the area of the country where one works. The title "Medical Illustrator" is a broad term. Depending on the type of employer and services provided, job skills may include animation, multimedia, interactive development, illustration, or web and graphic design. In general, medical illustrators with diverse skills and more responsibility for concept development command higher salaries. Based on 2006 survey data, the average starting salary in a university or institutional setting for a medical illustrator is around \$44,000 to \$55,000 per year plus benefits. Those who specialize in animation and multimedia typically earn a higher salary. Mid-level salaried medical illustrators (6-15 years) usually earn between \$54,000 to \$74,000 per year. Administrators and those with faculty appointments may earn between \$70,000 to \$150,000 per year. About 43% of salaried illustrators often supplement their income with freelance work.

Self-employed (freelance) medical illustrators may have set prices for particular kinds of art, but most establish fees based on usage rights granted and project complexity. Based on 2006 survey data, sole proprietors earn on average \$65,000 and up to \$225,000 per year. Although the earnings of self-employed medical illustrators may be more erratic than those of salaried illustrators, the highest earnings are generally made by those whose art and professionalism keep them in constant demand.

In addition to earnings from salary or freelance projects, some medical artists have royalty, coauthor, and reuse arrangements with publishers and clients that can provide an additional, and sometimes significant, source of income.

For more information, refer to www.ama-assn.org/go/hpsalary.



Educational Programs

Length. Accredited programs generally last 2 full years resulting in a master's degree.

Prerequisites. All current medical illustrator programs are at an advanced level and are based on a master's model. Although admission requirements to accredited programs vary, a bachelor's degree with an emphasis on art and science is preferred.

In addition, a portfolio of artwork and a personal interview are required.

Curriculum. While the area of emphasis may vary from program to program, the curriculum includes the following courses: an advanced course in human anatomy with dissection and courses in other biomedical sciences such as embryology, histology, neuroanatomy, cell biology, molecular biology, physiology, pathology, immunology, pharmacology, and genetics. Art and theory courses include anatomical drawing, illustration techniques in line, tone, and color (hand-rendered and computer-generated), surgical illustration, graphic design, computer graphics and multimedia, instructional design, motion media production, three-dimensional models and exhibits, management and business practices, and professional ethics.



Inquiries

Careers/Curriculum

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