

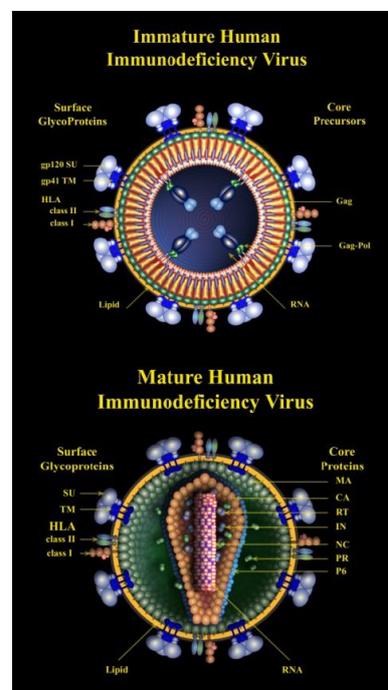
Artwork session



Louis Henderson

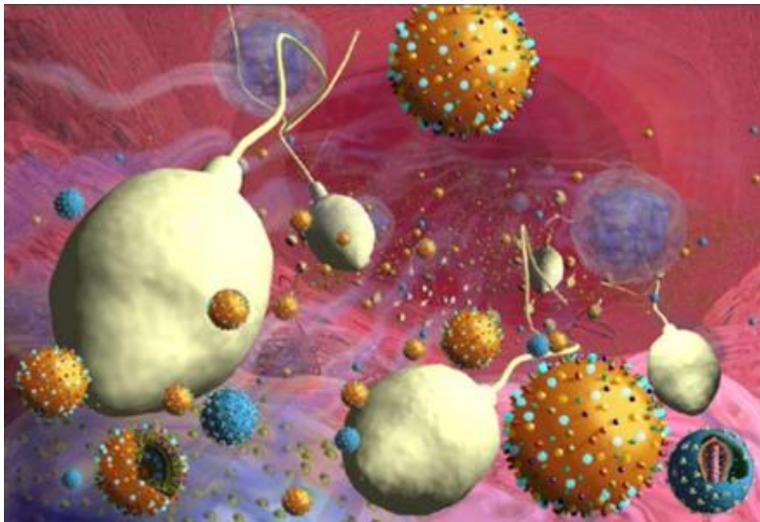
At this symposium, we will be displaying the scientific artwork of Dr. Louis Henderson who has retired from NCI-Frederick. Lou initiated his professional career at the University of Colorado in the early '60s where he got his start in protein chemistry, enzymology and chromatographic separation of proteins, laying the foundation for the seminal later work for which he is best known. He then traveled east to Harvard University as a Postdoctoral Fellow, then to the University of Goteborg, Sweden then back to Yale University in the United States as a Research Associate where he studied carbonic anhydrase, honing his protein sequencing skills. In 1976, he joined the staff at NCI-Frederick, where he pioneered the use of reverse phase HPLC methods for the separation of viral proteins. Despite always being more interested in working on the next experiment than on a new manuscript, over his career he authored or coauthored over 120 publications, on topics ranging from isotope exchange and enzyme activity of lysozyme and trypsin, to characterization of carbonic anhydrase, retroviral protein composition, purification and characterization of IL-2, retroviral inhibitors targeting the NC protein, cellular proteins associated with retroviruses, and many other subjects.

Later in his career, Lou became very interested in exploring the use of computer-based digital drawing programs to replace the tedious traditional methods for preparing graphics for scientific publications and slide presentations. Initially, he surveyed several digital drawing programs that were available for the PC and selected Macromedia's Freehand program as the then available program best suited for the job. He started preparing two-dimensional (2-D) objects and figures in color and through his efforts convinced the local Graphics Arts department at NCI-Frederick to start generating graphics by computer. One of the earliest figures that Lou created with Freehand took on a life of its own. The figure is a cartoon sketch showing cross-sectional views of an immature and mature retrovirus. The NIH AIDS Research and Reference Reagent Program had the figure made into posters that were distributed at various conferences, which wound up being displayed on laboratory walls all over the world and was later used in some textbooks. It was also incorporated into an art exhibition entitled "Art in Science" that was held in New York in 2001.



mature&ImmatureHIV3defectsflat

Dr. Henderson has refined his digital graphics methods, making use of primarily two programs, Adobe Photoshop and Macromedia Extreme 3-D used to generate object and lighting effects that create the illusion of three dimensions. Most of the images displayed at this exhibition were prepared using these programs. His images have been used on journal covers, in innumerable scientific presentations, and have also been displayed in gallery shows. The familiar saying, "A picture is worth a thousand words," was coined by Fred R. Bernard in an article published in the Printers' Ink, 1921 (Wikipedia.org), but with today's graphic arts capabilities, the value has surely increased. Science often uses the written word to generate mental pictures of a dynamic process. Dr. Henderson's artistic ability continues to provide us with excellent and aesthetically satisfying tools for the understanding of increasingly complex biological systems.



HHV8 - HIV & sperm Flat 3

Speaker at:

**8th INTERNATIONAL RETROVIRAL
NC SYMPOSIUM**

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