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Francis S. Collins, M.D., Ph.D., is a physician-geneticist and the Director of the National Human Genome Research Institute of the NIH in Bethesda, Maryland. In that role, he oversees a complex multidisciplinary project aimed at mapping and sequencing all of the human DNA, and determining aspects of its function. Many consider this the most important scientific undertaking of our time. The project is currently running ahead of schedule and under budget.

Hip, hip, array: imagining genomics in the next millenium

Large-scale genomic analysis of many organisms is now underway in earnest, with 90% of the human sequence expected to be freely available from public databases by the spring of 2000, a rapidly growing catalogue of human variation under construction and a growing feast of information on DNA sequence and function of a wide range of other organisms being generated, much of it by scientists attending this meeting. While predictions are risky, it is tempting, especially in the face of the beginning of the new millenium, to indulge in some speculations about the future of genomics in the next 40-50 years. At least for the near future, there will be no 'post-sequencing' era. Our appetite for sequence data will not soon be sated, and we will wish to know the complete genomic sequence of a long list of organisms. Similarly, there is unlikely to be a 'post-genomic' era any time soon. Genomics will change character, however, to an investigation of function on a large scale. Some tentative speculations about the significance of all this for biology and medicine will be offered.