



Our lives literally hang by threads, the 23 long molecular strands of DNA that encode over 100,000 detailed instructions (genes) specifying how to make every protein in our bodies. This entire library of instructions, our genome, is encoded in the sequence of just four different chemical units (base pairs) used to build the DNA chains. A major international effort, The Human Genome Program (HGP), is underway to identify all 3 billion or so base pairs of the human genome,

a massive undertaking only made possible only by recent advances in molecular genetics and associated technologies. The HGP will not only dramatically advance our understanding of over 4000 inheritable human diseases, it will also have a major impact on biology, agriculture, medicine and biotechnology-based industry well into the next century.

The United States initiated the program in 1991 and Canada, Japan, Russia and most European countries soon responded, often through HUGO, the HGP's international affiliate. Israel did not. In fact, there was a real danger that Israel would lock herself out of the most important Life Sciences initiative of the Twentieth Century. This was particularly ironic because Israeli scientists had made major contributions to molecular biology and other fields on

which the HGP was based. However, the Israeli Life Sciences community lacked both the funds and the organizational framework required.

The Israel Academy of Sciences and Humanities established a National HGP Advisory Committee in 1991 and, in 1993, used \$300,000 of its own funds (matched by \$200,00 of government funds), to help the Israel National Science Foundation issue a series of special Israel HGP Research Grants. One researcher has already successfully developed new technologies to speed up base-pair sequencing many-fold.

Israel in the Human Genome Program

Next, the Academy helped found two national, HGP-related research centers. The Israel Bioinformatics Center at the Weizmann Institute of Science also serves as Israel's national node within the European Molecular Biology Laboratory's international data-exchange network. The Laboratory for the Genetics of Israeli Populations at Tel Aviv University also serves as Israel's national center within the International Human Gene-diversity Project. Israel's well-characterized sub-populations from many lands represent an important international genetic resource for the latter.

The Academy's proactive efforts are now bearing fruit. Israeli scientists are becoming more involved in international HGP research and networking. In fact, HUGO recently appointed an Israeli, Prof. Doron Lancet of the Weizmann Institute of Science, as its international coordinator ("Editor") for Human Chromosome 17. The Israel Academy is now turning to the international donor community to help sponsor the new grants and fellowships needed to convince Israel's most talented young researchers that they can pursue their dreams of world-class HGP research in Israel. Interested organizations should contact AFBRI (see masthead) for more information.

Israel Science Calendar

Oct. 20-23 Congress World Small Animal
Veterinary Association
(Hebrew University)

Nov. 4-5 Molecular Basis of Brain
Function, Prof. Y. Citri
Memorial Symposium
(Weizmann Institute)

For further information please contact the institution
shown.

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The American Foundation For Basic Research in Israel (AFBRI)
c/o PDA, 25 W. 45th St., New York, NY 10136 Phone: (212) 840-1166 Fax: (212) 840-1514

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