Biographical Sketch: Michael J. Heller, Ph.D.

Michael J. Heller received his Ph.D. in Biochemistry from Colorado State University in 1973. He was an NIH Postdoctoral Fellow at Northwestern University from 1973 to 1976. Dr. Heller was supervisor of the DNA Technology Group at Amoco Corporation from 1976 to 1984. During that time he carried out bioengineering and recombinant DNA engineering work on plants, algae and photosynthetic bacteria for energy and chemical production. He also oversaw >$10million sponsored research at Cetus Corporation on related recombinant DNA work for energy and chemical production. Dr Heller was Director of Molecular Biology at Molecular Biosystems, Inc., from 1984 to 1987. Dr. Heller was a co-founder of Integrated DNA Technologies, and served as President and Chief Operating Officer from 1987 to 1989. He was a co-found of Nanotronics and Nanogen, and served as the Chief Technical Officer from 1993 to 2001. Nanogen carried out the successful development and commercialization of microelectronic DNA array technology for clinical genotyping applications. Dr. Heller is now a professor in the departments of Bioengineering and NanoEngineering at the University California San Diego. He still serves as a consultant to Nanogen. Dr. Heller has extensive industrial experience in biotechnology, biomedical devices and nanotechnology; with particular expertise in the areas of DNA probe diagnostics, DNA synthesis, fluorescent-based detection technologies and electric field assisted self-assembly of DNA nanocomponents. Dr. Heller has a respectable publication record, and has been an invited speaker to a large number of scientific conferences and meetings related to DNA microarrays, biosensors, lab-on-a-chip devices, bio-MEMS and nanotechnology. He has over 40 issued US patents related to microelectronic chips, microarrays and integrated devices for DNA hybridization, miniaturized sample to answer diagnostic devices, biosensors, genomics, proteomics, nanotechnology and nanofabrication, nano-based DNA optical storage and for fluorescent energy transfer in DNA nanostructures. Dr. Heller has been a panel member for the White House (OSTP) National Nanotechnology Initiative 1999/2000; the NAS (NAE) Review of National Nanotechnology Initiative 2001-2002; the NAS(NAE) – Engineer for the 2020 - 2001/2002; and has also been involved in a number of NSF Nanotechnology Workshops. He was also a panel member for the California Blue Ribbon Task Force on Nanotechnology.

Michael J. Heller, Professor
Dept. Bioengineering/Dept. NanoEngineering
University California San Diego
PFBH Bldg. Rm 429
9500 Gilman Dr.
La Jolla, CA 92093-0412
(858) 822-5699
(858) 534-5722 fax
mheller@bioeng.ucsd.edu