Prof.dr. J.C. van Lenteren Laboratory of Entomology Wageningen University PO Box 8031, 6700 EH Wageningen, The Netherlands

Wageningen, 15 July 2004

Dr. John H. Werren Department of Biology University of Rochester Rochester, N.Y. 14627 USA.

Dear Dr. Werren,

With this letter I like to acknowledge the importance of the *Nasonia* Genome Sequencing Project. I do this from my more than 30 years career in biological control and parasitoid research.

With the ever increasing incidence of insecticide resistance among pest insects, rising costs of insecticides and a growing public concern about actual or potential problems associated with insecticides, interest in non-chemical forms of pest control is continuously growing. Development and application of alternatives for synthetic pesticides is now the official policy in many countries world-wide. As a result of my own and my colleague's activities, the pest control picture in e.g. The Netherlands looks dramatically different from 30 years ago. In the 1970s we had more than 300 active ingredients on the market which were used in thousands of pesticide formulations; at the same time, we had 2 natural enemies for biological control of pests in The Netherlands. Currently, there are less than 70 active chemical ingredients registered for chemical pest control, whereas about 120 natural enemies are mass produced in The Netherlands. The majority of these natural enemies are insect parasitoids. Based on their very limited host ranges when compared with other categories of natural enemies such as predators and pathogens, it is expected that insect parasitoids will remain the most important category of biocontrol agents world-wide.

From this perspective, it is incomprehensible how little research effort has gone into genetic characterisation of parasitoids. The *Nasonia* Genome Sequencing Project is one of many deeply needed initiatives to obtain fundamental genetic information about parasitoids that can be applied for improving the economics of the biocontrol industry, and hence human nutrition. Examples include more cost-efficient rearing methods, improvement of host-searching and learning techniques, as well as exploring the potential for genetic modification of parasitoids. *Nasonia* also provides a direct link to biocontrol because it is a natural enemy of flies. Many fly species have been associated with filthy conditions and represent a potential threat to human and animal health as scientifically proven causative agents of a variety of food-borne pathogens.

A full genome sequence of *Nasonia* will greatly accelerate fundamental genetic research of parasitoids and will yield invaluable knowledge for applied research. The need for funding this initiative is tremendous.

Sincerely Yours,

Joop C. van Lenteren Professor of Entomology President of the International Organization for Biological Control (IOBC-IUBS Global) of Noxious Animals and Plants