FRANCOIS GROS
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Closing Session
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Ladies and gentlemen,

In connection with the BioVision Alex Forum, the Aventis Pasteur Foundation has recently decided to create a new prize. The aimer wishes to encourage or stimulate research activities which are related, of course, to an attempt to solve the problems which are connected with the disease in developing countries and we shall hear more about the organization of the prize and its origin from the representative of the Aventis Pasteur Foundation. What I would like to say is that the Jury of the Foundation or the scientific committee of the organization which is headed by Phillipe Kourilsky, who is now the direct president of the Aventis Pasteur, has decided to award this Prize in 2004 to a young but highly talented Microbiologist: Armelle Phalipon.

As a former director general of the Aventis Pasteur institute, it is of course a privilege and I am pleased to be at the chair to offer my congratulations to this extremely good scientist.

I would just like to recall that Armelle Phalipon got a PhD in 1998 in the work on DNA.

But lets move to a very important subject, the attempt to explain on molecular basis the phenomena of lets say violence of […]bacteria.

Armelle Phalipon did become specialized in molecular genetics but also in the fight against infectious diseases. This was done by the department aided by Professor Phillipe Sonsoncity, who is a member of our Academy and who is of course well-known for his investigation in the filed. The work that was carried out in this group was of course directed against the infectious diseases but more particularly the mechanism of violence of a particular group of bacteria, dangerous pathogens which reside in endemic stage in developing countries, namely Shigella. Shigella, contrary to

most bacteria pathogens, is a type of bacteria which is used to penetrate inside of the cells for the infected of the infected host. They can invade the intestinal mucosa, they can penetrate inside the epithelium cell itself, thanks to a strange like mechanism. Then they propagate from cell to cell, liberate some toxins causing some very acute dysentery and some of the Shigella species is indeed very harmful because they can cause sometimes very fetal diseases which are particularly frequent in developing countries. The group as acquired by the group, of course in which Armelle has played a major role, has acquired a world recognition for having dissected in great details at genetic and molecular level the mechanisms of injections and penetration. By isolating, thanks of course to gene cloning most of the proteins and signaling factors which are involved at this particular state of the infection. This is a very bizarre type of machinery which in a sense resembles the contractual operative of the muscle and by doing so of course this is shedding new light on some of the major bacterial machinery and all cell machinery involved in this penetration and therefore can afford new orientations for finding new drugs and eventually for eliciting new vaccines against each of these proteins. More recently Armelle Phalipon has of course attempted to dissect the mechanism of the immune response against these types of bacteria which are very dangerous since they can be hidden inside the cell and of course are less accessible to enter in micro[..] and she could show that there are different types of lets say immune defense mechanism one which is directed against the bacteria before it penetrates inside the cell and another one which is mediated by IG molecular which permits to antagonize the infection after the penetration within the cell. Well, of course she will tell more about her work in a few minutes and I would like to say that to conclude the work of Dr. Phalipon it illustrates in as sense a tradition that was indicated many years ago by Louis Pasteur, namely, showing that this is a typical example of his basic study on bacteria which can lead to very concrete way to address and eventually solve some of the health problems in developing countries, therefore I think it is justified that the prize be given to Dr. Armelle Phalipon.