Professor Michel Morange, Ecole Normale Supérieure, Paris. Opening remarks at the inauguration of the Jacques Loeb Centre for the History and Philosophy of the Life Sciences, 4 March 2008.

I am very pleased and honoured to have been invited to the inauguration of the Jacques Loeb Centre for the History and Philosophy of the Life Sciences at the Ben-Gurion University of the Negev. I would like, in the next few minutes, to consider the different reasons why I think that the creation of this centre is a very positive event.

The first is that it gathers historical and philosophical approaches of science in the same place. Too often in recent years, philosophy and history of science have been separated. I personally belong to a tradition – the French tradition of research in the history and philosophy of science, including the life sciences, with eminent scholars such as Georges Canguilhem, Gaston Bachelard, Alexandre Koyré – in which history and philosophy have always been associated.

This tradition is excellent. My own personal experience is that the history of science cannot go deep enough in the understanding of science without philosophy, and philosophy cannot be precise enough without history. The back-and-forth movement between historical studies and philosophical reflections is necessary to prevent history being too factual and the philosophy of science being disconnected from true scientific practice.

Studies of the history of science have been reinvigorated and enriched during the last few decades by the development of the so-called “social studies of science”. However, one must not forget that the conceptual content of science is also important, that analyses in terms of strategies are not sufficient, and that the insights of philosophy are essential.

This new centre is focused on the life sciences. There is a special link between the life sciences and the history and philosophy of science. The multidisciplinary character of biology and the complexity of this scientific field make it attractive to philosophers. In addition, the question of life has somehow been shared by philosophers and biologists.

The huge transformations that affected the life sciences during the 20th century have continued into the early years of the 21st. These transformations deserve to be fully characterized and analyzed. Biologists themselves are puzzled by the rapid development of new technologies, and the emergence of new disciplines and new visions. It is quite remarkable how often they presently refer to authors of the past to justify the new orientations. D’Arcy Thomson and Conrad Waddington are frequently mentioned as precursors. This historical interest of biologists shows that the present time is favourable to a fruitful interaction between historians, philosophers and biologists.

The history and philosophy of science can exist as independent disciplines. But my strong personal conviction is that a full justification for these disciplines cannot be found without a narrow relation with science and scientists.

Such a relation is not easy to establish. Most scientists consider that creative science does not require any knowledge of the past or any philosophical enlightenment. On the contrary, the most brilliant scientists are frequently considered as the most ignorant and naive. The discovery of the structure of DNA by Francis Crick and James Watson is emblematic of this opinion: both were ignorant of the previous work done on DNA. Social scientists have supported, from a very different perspective, a similar statement: to be productive, scientists have to be ignorant of the way scientific knowledge is constructed. And the periods when science and scientists are more interested in history and philosophy are frequently interpreted as periods of less creativity and limited progress.

This vision is clearly wrong. It has been repeatedly shown by historians of science that the best scientists are not ignorant of the past and of the philosophical traditions. In contrast to the opinion supported by Trevor Pinch and Harry Collins in The Golem, scientists must not ignore how scientific knowledge is constructed to be good scientists.

I have the feeling that this traditional and negative vision of the role that the history and philosophy of science play in scientific developments is progressively fading. The history and philosophy of science are now considered as necessary for the training of scientists, and research in the history and philosophy of science is seen as having close connections with scientific research itself.

The history and philosophy of science are – and must be – fields of research that are distinct, but highly connected with the development of scientific knowledge: for the benefit of science and of the history and philosophy of science.

I know and appreciate the work of Ute Deichmann and colleagues of the new Jacques Loeb Centre. And I am sure that they will be the right people to strengthen these connections.