

# Sustainable Growth of the Pharma industry: a need to maintain innovation and access for all

For the past ten years or so, many organisations in various countries have issued warnings regarding the exponential increase in drug prices and the cost for the society to support the business of the Pharma industry. This controversy is centred on the price asked by the Pharma industry for its new innovative drugs, which is considered by many stakeholders regardless of the requirements of the economic model used in the industry. By considering price disconnected from investment and risk, the complexity of funding drug development is not given justice. Looking back at history and the fundamentals behind the Pharma model, a different perspective could help to ease the tensions that prevent a serene debate around the Pharma industry commitment to society.

**The many dimensions of science: a living debate.** Merton<sup>1</sup> defines science as "a selfless search for truth before being a means of livelihood". This has been emphasised by the notion of "scientific capital, a particular kind of symbolic capital"<sup>2</sup>. In both cases, the economic and material dimension appears as non-essential to science. The industrial capitalism built all along the 19th and the 20th century changed this perspective by introducing an economic dimension to this approach. This period is also the time when science becomes autonomous and moves into what some have called "commercial science"<sup>3</sup>: scientist were transformed into "civic scientists" or scientists that put their skills at the service of the industry<sup>4</sup>. Science's association with industrial capitalism was value-creating and posed the problem of sharing this value between various actors directly or indirectly related to the greater economy *i.e.* beyond science. Max Weber stated in his time that "the first rational patent law was a positive innovation" that allowed innovation to transform industrial capitalism. Through the notion of "scientific property" that encompasses all dimensions of the intellectual property in the field of science and using the patent as a tool to transform this scientific property into an economic asset, scientists and the industry found a common ground to work together. Following this principle, the pharmaceutical industry has built its business model on the development of innovations that will revolutionise the treatment of diseases - thus establishing a moral contract: scientists make transformative discoveries, the pharmaceutical industry explores and takes risks to develop drugs based on these discoveries, and society rewards this effort by allowing the commercialisation of these innovations. This model is based on the same fundamentals as those put in place in the 18th century for the rapid development of inventions: the private sector invests at risk in order to bring society to a technological golden age. However, in the last 20 years, this moral contract between the pharmaceutical industry and civil society has been undermined by the perception that the Big Pharma has abused its dominant position and replaced the search for innovation with the search for profit. Many stakeholders consider that a consumer-centered model has slowly replaced a model based on science and innovation which hold the promise of improving health as its main "raison d'être".

**How could such a change take place ?** Several explanations can be put forward: the consumerisation of the drug model, the increasing complexity of biomedical research which multiplies investment costs and the need to maintain a high profitability profile in order to keep investors interested are some of them. In a series of articles to come, I will try to bring a different perspective to the debate. I hope to be able then to give a new perspective to the debate.

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<sup>1</sup>priorities in scientific discoveries. A chapter in the sociology of science. *American sociological review*, vol. 22, n°6, 1957,p.659

<sup>2</sup>Pierre Bourdieu, *Science de la science et réflexivité*, Paris, Raisons d'agir, 2001

<sup>3</sup>Paul Lucier, "commercial science" dans Bernard Lightman (dir.), *A companion to the History of Science*, Chichester, John Wiley & Sons, 2016, p.268-281

<sup>4</sup>Robert Kragon, *Science in Victorian Manchester*, Manchester, Manchester University Press, 1977