Synergy between Academy and Industry in Structural Biology

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ABSTRACT

After a Ph.D obtained in a French academic Institute, my cursus contained several post-doctoral positions strongly focused on structural biology with an emphasis on protein/ligands complexes crystallography. This specialised branch of biology is of upmost interest in the pharmaceutical industry for developing new drugs and medical treatments. Since two years, I am working for a renowned pharmaceutical company (i.e. SERVIER) at the French national synchrotron facility SOLEIL, in the context of a long-term partnership between SOLEIL and the company SERVIER.

In this context, industrial applications at SOLEIL have recently been reinforced by the opening within SOLEIL of an industrial laboratory specialised in and dedicated to structural biology, working in the vicinity of the biology village and macromolecular crystallography PROXIMA beamlines. The presence of a structural biology unit from the industrial group SERVIER laboratory directly on synchrotron site allows for a rapid access to beam time and x-ray diffraction experiments. In this environment, my personal mission on lead industrial projects is facilitated and some of their results are highlighted in peer-reviewed publications. This bilateral collaboration allows industrial applications to develop in an accelerated and facilitated manner. Practical solutions to redundant problems in sample preparation for structural studies are favoured, which reduces the industrial partner's product-to-market downtimes and enhance its R&D programmes.