



Swiss Institute of  
Bioinformatics

Sylvain Poux, PhD  
Head of annotation department  
Swiss-Prot group  
SIB Swiss Institute of Bioinformatics  
1, rue Michel Servet  
CH-1211 Geneva 4  
Switzerland  
[Sylvain.Poux@sib.swiss](mailto:Sylvain.Poux@sib.swiss)

### **Biographical sketch:**

My PhD work focused on the study of chromatin structure and embryonic development. I joined the Swiss-Prot group of the SIB Swiss Institute of Bioinformatics as a biocurator in 2002. In 2002, the SIB Swiss-Prot group together with EBI and PIR created the UniProt Consortium. The Swiss-Prot section of the UniProtKB contains only manually and expert reviewed literature-based protein entries and is mainly produced in Geneva. Having to integrate the Swiss-Prot knowledgebase into a larger resource prompted the creation of a new team in Geneva dedicated to quality assurance (QA) of the biocuration process and I was offered to lead this team. The goal of the QA team is to define, document, and enforce the annotation rules to ensure the high quality of Swiss-Prot entries. This assignment also involved accurate review/revision/correction of all individual protein entries before their actual publication in UniProtKB/Swiss-Prot. Since November 2009 I am heading the department of annotation and integration of the SIB Swiss-Prot group, which is composed of 22 curators. Among my responsibilities, I am in charge of defining the literature-based annotation strategy and new rules for annotation.

My strong background in 'wet lab' research turned out to be extremely valuable when I reoriented my career to become a biocurator. Good first-hand knowledge of laboratory techniques and of research is indeed essential to understand and capture appropriate data from the literature. During all these years I have developed my knowledge of the intricacies of UniProtKB/Swiss-Prot manual curation and also learned a lot from our consortium partners. In addition, I developed strong connections with the biocuration community, such as the Gene Ontology (GO) Consortium, and since 2014, I am an elected member of the Executive Board of International Society for Biocuration (ISB).

### **International Society of Biocuration:**

These last years, databases have faced a number of challenges. Recent progress in technology generates huge amounts of data that resources must integrate, store and transform into usable knowledge. This has a cost that often been forgotten. At the same time, many resources are facing long term sustainability funding. While databases have become an



essential tool of every research project and are being used daily by large scientific communities worldwide, the contribution of biocurators is still largely underestimated or not explained enough. It is therefore important to promote biocuration as a career.

From my experience, I clearly see the multifold benefits of professional biocurators with long experience, able to deliver high quality annotation while making efficient uses of biocurator resources. From this perspective, the ISB provides a unique opportunity to promote the work of biocurators and its impact on research to a larger community and to the funding agencies.

The recent tsunami of data also has consequences on the scope and approaches of biocuration. On one hand, some consider that with more than one million papers published every year, expert curation is not an option anymore since it is impossible to keep up with the amount and the extreme diversity of data. On the other hand, others still consider expert biocuration as the only solution to provide a corpus of high quality datasets, automation generates too many false positives. Actually, these two models are not mutually exclusive as demonstrated by a study that we have published recently (<https://doi.org/10.1093/bioinformatics/btx439>). Using UniProtKB/Swiss-Prot as a case study, we demonstrated that expert curation is scalable thanks to close collaboration between text-mining and expert biocurator communities, highlighting the importance of collaboration between resources. In this context, the ISB is an ideal platform to promote collaboration and synergy between the different resources.

Since 2014, as elected member of the Executive Board of the ISB, I could serve the biocuration community and help to promote Biocuration as a career. I also had the opportunity to participate actively to the organization of the biocuration conference and was co-chair of the organizing committee of the Ninth International Biocuration Conference that took place in Geneva in April 2016.

Having worked in Biocuration for over 15 years, I look forward to continue to serve on the executive committee of ISB.

Yours sincerely

Sylvain Poux, PhD  
Head of annotation department  
Swiss-Prot group



### *Statement of Conflicts and Other Commitments*

Committee: Elected member of the Executive Board of the ISB since 2014

Conflict of interest: I hereby declare that I am unaware of any activities, association memberships etc. which may result in a potential conflict of interest with serving on the ISB Executive Committee.

Consortia: Member of the UniProt consortium.

Sylvain Poux