

European Society of Ophthalmology



Submit completed abstract to the Secretariat

Name: Clemens A. Strohmaier
European Leadership Development Program Class of 2017-2019
Project Abstract

Please include the headings if appropriate: Title, Purpose, Methods, Results and Conclusion

Title of Project: Electronic Science Documentation System

Purpose: Today's life science methods rely heavily on information technology, while documentation of obtained scientific data mainly remains in the pre-IT era, i.e., results recorded by individual scientists or lab staff are documented in their personal lab book on paper. This "paper and book" approach has adverse effects on the efficiency within a scientific group and/or related partners.

Methods: Using evolutionary prototyping, a laboratory information system was created, based on widely available software tools. While the system started with a focus on sample storage and experimental documentation resembling the way of a traditional paper book, it was extended by more sophisticated analysis tools.

Results: A highly customized software solution is available which improves the efficiency of the lab – both on an everyday basis through enhanced storage management and data retrieval, as well as from a strategic point of view through much better knowledge accumulation as a compound interest effect.

Conclusion:

Scientific institutions must aim at process based IT support as it is common in many other fields. Besides efficiency gains in the lab routine, such systems can yield new insights if deployed on a university or international scale.