labfolder: from science to entrepreneurship

Founding a company to improve the way research is done – by Florian Hauer

With the amount of biological knowledge growing, so is the availability of data: Online databases of papers, patents, structures, pathways, diseases and many other biological data categories can be accessed online – with one exception: There is no source of structured protocol data which can be easily used to optimize your own experiments. Instead, methodological knowledge is often not published, and mostly remains buried forever in lab notebooks.

Because of an enormous potential in the ways methodological knowledge is handled is lying dormant, my colleague and friend Simon Bungers from the Max Planck Institute for Experimental Medicine and I decided that it was time to do something about it. What we envisaged was a database in which you could easily find whether somebody has done something similar to your work before and then get suggestions on how your own protocol should be altered for a higher chance of success.

Thus, we decided to start up a company to make or idea real, and labfolder was born. In search of a brilliant programmer to realize labfolder

together with us, we found Mathias Schäffner, who had just sold his first start-up successfully and was eager to work on the next world-changing project. With Mathias living in Berlin already, and with the Free University of Berlin providing us assistance in the acquisition of funding, we decided that labfolder should happen in Berlin.

When designing the concept of labfolder, we figured that the easiest way to structure methodological data would be to capture the data at the source: at the level of entry into the lab notebook. So we decided to create our own digital lab notebook which is – unlike the others – attractive and simple to use.

In this digital lab notebook, protocols and experimental data can not only be entered in free form regardless of the data format, but labfolder will provide a toolbox in which any protocol can be

The labfolder team Simon Bungers, Mathias Schäffner, and Florian Hauer (from left to right)

built together with building blocks, like with Lego bricks. This does not only save time, but also allows to create flexible templates which can be reused easily for recurring protocols and have the capabilities of in-data calculations, like calculating molarities with changing volume, dilution series, master mixes and much more.

As a bonus, the utilization of common building blocks for the representation of protocols makes automated comparison and data mining possible. Instead of painfully reading notebooks piled up in your department, you can quickly find and compare all the protocols relevant for your own work.

As a scientist, becoming a self-employed entrepreneur can be quite a challenge: You have to do a lot of things you never thought you would have to do. Since it is relatively easy for scientists to acquire funding for start-ups, most of them are not prepared for doing all the representative and administrative tasks required if you suddenly have to run your own company: Developing an innovative software, convincing people of our idea on the phone,
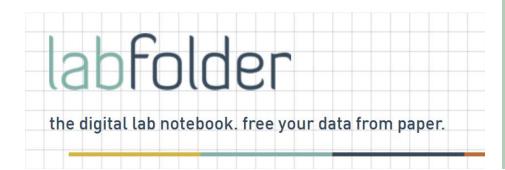
during meetings and presentations, dealing with legal issues concerning lab documentations, handling a tight budget, and many more responsibilities.

With the preparation I got from the secondary skills courses and the experiences I had made already during the organization of the Horizons conference and while doing administrative work in the PhDnet, I was already quite well prepared – not only in terms of professional preparation, but also in terms of valuable contacts.

Help us to make labfolder even better: visit www.labfolder.net and register for free to try out labfolder. labfolder is free and will always be for individual scientists, whereas groups larger than three scientists can use additional data and protocol sharing functionalities for a monthly fee. Currently, labfolder is at an alpha state with limited functionality, but we are aiming on implementing new functions into our digital lab notebook based on the user's needs and input. How do you want labfolder to be? What are the data challenges you are facing in the lab every day? Which tools would help you most in the lab every day? Let us know!

Contact us any time at fh@labfolder.net!

Current position and location of PhD alumni

Florian Hauer did his PhD in the group of Holger Stark at the MPI for Biophysical Chemistry. He graduated from the Molecular Biology program in August 2009, wondering why so many biologists are still not exploiting the full potential of computers the every-day work of biosciences research. Seeing the necessities of general changes in data handling and information management, he co-founded *labfolder* to make the changes happen.

labfolder
the digital lab notebook. free your data from paper.