

Phage Display against different complement components: For identification and development of novel peptide complement inhibitors

Have you known that phage display is a powerful technique used for the generation of peptide-based ligands?

Through phage display one of the most known complement C3 inhibitors (compstatin) was discovered and further developed by performing structure activity relationship studies. This improvement even led to a FDA and EMA approval in 2021!

We would like to offer a master thesis position to a motivated student from the university of Basel or from another university to perform his/her thesis in our group.

In our group common molecular biology techniques but also solid phase peptide synthesis are being used on a daily base.

If you apply for this position, you will use following methods:

- Phage display against different complement components
- Solid phase peptide synthesis of the discovered lead structures
- Testing the leads in different biochemical assays:
 - Complement ELISAs
 - Surface plasmon resonance (SPR)
 - Biolayer Interferometry (BLI)
- Performing structure activity relationship studies with identified leads and trying to improve their inhibition potential.

In our group we offer many more methods and can give you the opportunity to learn more about production and design of novel therapeutics. If you are interested in the project and the methods we use feel free to contact ether Stephanie (stephanie.vogt@unibas.ch) or Aleksandra (aleksandra.blagojevic@unibas.ch) to learn more about it.