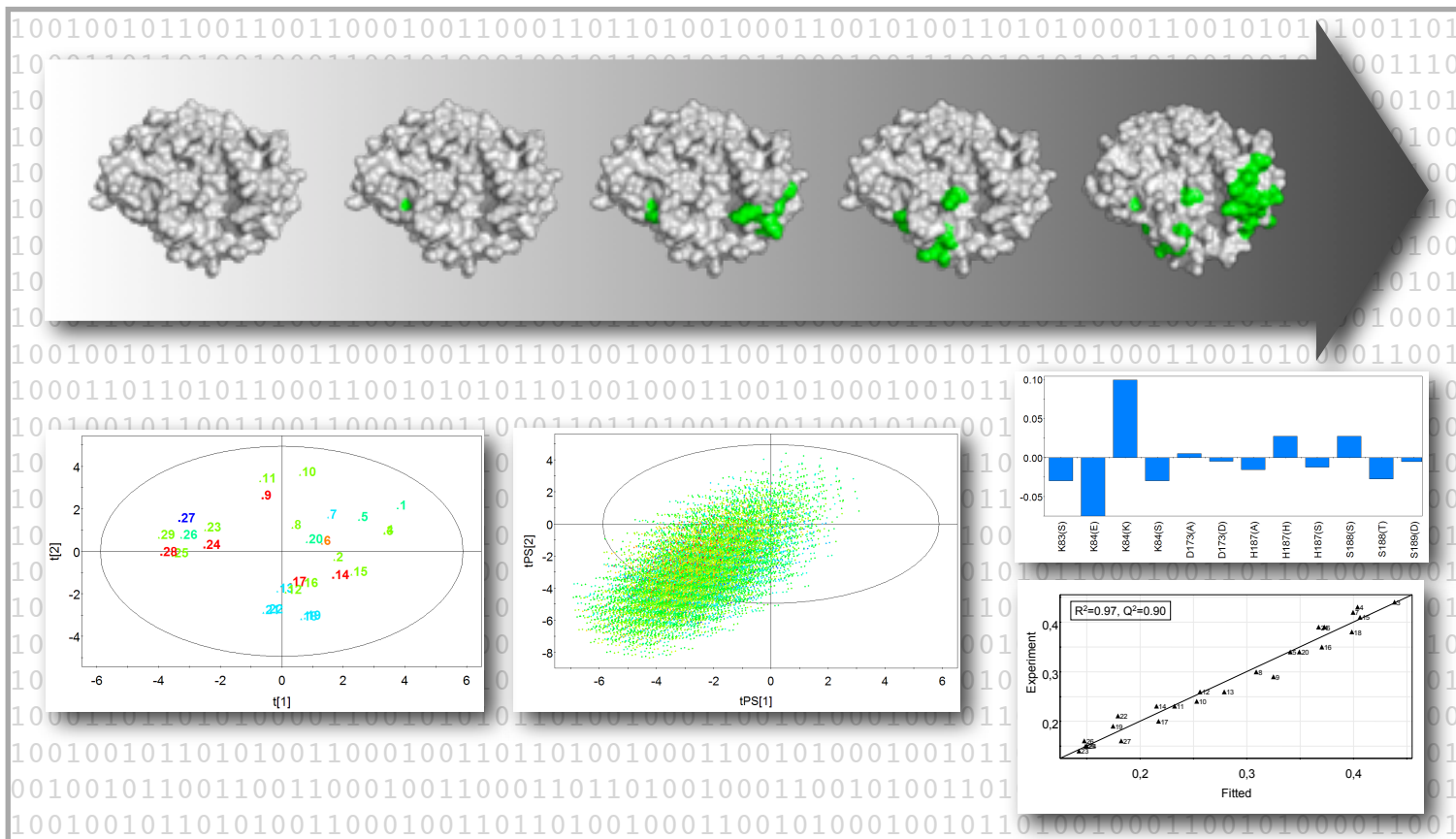


ProPHECY™ Protein & Peptide Optimization



The ProPHECY™ technology:

It is often desirable to modify a biomolecule (peptide, protein, antibody etc.) to enhance certain properties like stability, solubility and catalytic or biological activity. Usually this is performed by creating large numbers of random mutations in the protein using phage display or directed evolution technologies, or by constructing synthetic peptide libraries and picking up improved variants using a suitable screening system. The problem with this approach is that several rounds of screening are necessary until sufficient optimization/improvement is found, with the consequence of increased project time and cost.

Our proprietary ProPHECY™ technology offers a quicker and less costly approach to the complex problem of protein optimization. The ProPHECY™ method is based upon the application of multivariate regression methods to correlate novel computed physicochemical parameters with experimentally determined properties.

Benefit from our service by:

- Reducing the effort, time and cost involved in optimizing one or several targeted properties
- Reaching your goal faster and at lower cost compared to random screening
- Discovering hidden information in large and complex data sets
- Predicting the effect of a single amino acid replacement from data containing complex replacement patterns
- Achieving detailed quantitative information on the influence of each amino acid replacement
- Performing optimization of several parameters in parallel
- Understanding sequence-activity-relationships
- Using the gained information to rationally predict and design new optimized variants

