

# Yannick Mahlich

Department for Bioinformatics and Computational Biology  
Technical University Munich, Department of Informatics  
Boltzmannstraße 3, 85748 Garching, Germany

Department of Biochemistry and Microbiology  
Rutgers University, School of Environmental and Biological Sciences  
76 Lipman Drive, Room 222, New Brunswick, NJ 08901

phone: +1 (848) 932-5626 | +49 (89) 289-17831 / email: [ymahlich@bromberglab.org](mailto:ymahlich@bromberglab.org) /  
skype: y.mahlich

---

## EDUCATION

### **Ph.D. student, Bioinformatics and Computational Biology** **Dec. 2014 – present**

Institution: Technical University Munich, Department for Bioinformatics and Computational Biology  
Preliminary title: Predicting functional capabilities of microbial metagenomes, using similarity graph approaches  
Advisor: Prof. Yana Bromberg

### **M.Sc., Bioinformatics** **Nov. 2014**

Institution: Technical University Munich, Department for Bioinformatics and Computational Biology  
Thesis title: Evidence for evolutionary distance visible in effect scores of amino acid substitutions between species  
Advisor: Prof. Burkhard Rost

### **B.Sc., Bioinformatics** **May 2012**

Institution: Technical University Munich, Department for Bioinformatics and Computational Biology  
Thesis title: Sole usage of amino acid propensities results in robust performance for predicting structural change in protein fragments  
Advisor: Prof. Burkhard Rost

---

## PUBLICATIONS

1. Zhu C., **Mahlich Y.**, Miller, M., Bromberg, Y., (2017) fusionDB: assessing microbial diversity and environmental preference via functional similarity networks, *in preparation*

2. **Mahlich, Y.**, Reeb, J., Hecht, M., Schelling, M., De Beer, T.A.P., Bromberg, Y., Rost, B. (2017) Common sequence variants affect molecular function more than rare variants? *Scientific Reports*, in press
3. Reeb, J., Hecht, M., **Mahlich, Y.**, Bromberg, Y., and Rost, B. (2016) Predicted Molecular Effects of Sequence Variants Link to System Level of Disease. *PLoS Comput Biol*, 2016. 12(8): p. e1005047.
4. Radivojac, P., Clark, W.T., Ronnen Oron, T., Schnoes, A.M., Wittkop, T., Sokolov, A., Graim, K., Funk, C., Verspoor, K., Ben-Hur, A., Pandey, G., Yunes, J.M., Talwalkar, A.S., Repo, S., Souza, M.L., Piovesan, D., Casadio, R., Wang, Z., Cheng, J., Fang, H., Gough, J., Koskinen, P., Törönen, P., Nokso-Koivisto, J., Holm, L., Cozzetto, D., Buchan, D.W.A., Bryson, K., Jones, D.T., Limaye, B., Inamdar, H., Datta, A., Manjari, S.K., Joshi, R., Chitale, M., Kihara, D., Lisewski, A.M., Erdin, S., Venner, E., Lichtarge, O., Rentzsch, R., Yang, H., Romero, A.E., Bhat, P., Paccanaro, A., Hamp, T., Kassner, R., Seemayer, S., Vicedo, E., Schaefer, C., Achten, D., Auer, F., Böhm, A., Braun, T., Hecht, M., Heron, M., Hönigschmid, P., Hopf, T., Kaufmann, S., Kiening, M., Krompass, D., Landerer, C., **Mahlich, Y.**, Roos, M., Björne, J., Salakoski, T., Wong, A., Shatkay, H., Gatzmann, F., Sommer, I., Wass, M.N., Sternberg, M.J.E., Škunca, N., Supek, F., Bošnjak, M., Panov, P., Džeroski, S., Šmuc, T., Kourmpetis, Y.A.I., van Dijk, A.D.J., ter Braak, C.J.F., Zhou, Y., Gong, Q., Dong, X., Tian, W., Falda, M., Fontana, P., Lavezzo, E., Di Camillo, B., Toppo, S., Lan, L., Djuric, N., Guo, Y., Vucetic, S., Bairoch, A., Linial, M., Babbitt, P.C., Brenner, S.E., Orengo, C., Rost, B., Mooney, S.D. and Friedberg, I. (2013) A large-scale evaluation of computational protein function prediction. *Nature methods*, 2013. 10(3): p. 221-227.
5. Hamp, T., Kassner, R., Seemayer, S., Vicedo, E., Schaefer, C., Achten, D., Auer, F., Boehm, A., Braun, T., Hecht, M., Heron, M., Hönigschmid, P., Hopf, T.A., Kaufmann, S., Kiening, M., Krompass, D., Landerer, C., **Mahlich, Y.**, Roos, M., and Rost, B. (2013) Homology-based inference sets the bar high for protein function prediction. *BMC Bioinformatics*, 2013. 14(3): p. S7.

---

## RESEARCH EXPERIENCE

### Research Visit

**Mar. 2017 – present**

*Rutgers University, New Brunswick, NJ, USA – Department of Biochemistry and Microbiology*  
Continuation of Ph.D. project with advisor Prof. Yana Bromberg

### Research Visit

**Jan. 2015 – Oct. 2016**

*Rutgers University, New Brunswick, NJ, USA – Department of Biochemistry and Microbiology*  
Kick-off of Ph.D. project with advisor Prof. Yana Bromberg

### Student Assistant

**2011 – 2014**

*Technical University Munich, Munich, Germany – Rostlab, Department for Bioinformatics and Computational Biology*

Effect analysis of functional impact induced by single nucleotide variation in human populations and between species

**Student Assistant**

*Helmholtz Zentrum München, Munich, Germany*

Organizing text mining results extracted from medical publications

**2012**