



Curriculum Vitae

Personal information **Minoska Valli**

Work experience

1. Employer: AGES
 - Start date: 012021
 - End date:
 - Position: Quality Assessor for biologics
 - Activities: Evaluations of MAA submitted through the centralised procedure EMA_SA
 - Country: Austria
2. Employer: Austrian Centre of Industrial Biotechnology (ACIB GmbH)
 - Start date: 022012
 - End date: 022020
 - Position: PostDoctoral research associate: Data analyst
 - Activities: Curation of the gene/protein annotation of the non_conventional yeast *Komagataella phaffii* and creation of the *K. phaffii* genome database. Setting up of an internal database with data derived from recombinant *K. phaffii* strains engineered in our group. Interpretation of omics analyses (transcriptomics, proteomics, metabolomics, RNAseq) performed on wild type and recombinant *K. phaffii* strains to identify metabolic pathways and cellular processes to be further engineered to improve productivity.
 - Country: Austria
3. Employer: FH Campus Wien, University of applied sciences
 - Start date: 092005
 - End date: 012012
 - Position: PostDoctoral research associate: Laboratory research scientist
 - Activities: Engineering of yeast cells to produce heterologous proteins of pharmaceutical interest, using technics typically used in molecular biology. Characterisation of engineered cells by confocal microscopy and flow cytometry. Evolutionary engineering and cell selection with fluorescence_activated cell sorting.
 - Country: Austria
4. Employer: University of Natural Resources and Life Sciences, Vienna BOKU
 - Start date: 042004
 - End date: 092005
 - Position: PostDoctoral research associate: Laboratory research scientist
 - Activities: Isolation of best yeast lactic acid producing strains based on their intracellular pH by evolutionary engineering and cell selection with fluorescence_activated cell sorting (FACS). Analyses of intracellular pH in non_conventional yeast.
 - Country: Austria

Education and training

1. Subject: University of Milano_Bicocca
 - Start date: 092000
 - End date: 012004
 - Qualification: Doctor Degree in Industrial Biotechnology
 - Organisation: Engineering of the non_conventional yeast *Zygosaccharomyces bailii* for heterologous protein production. Optimization of staining protocols to study yeast intracellular pH at the single cell level by flow cytometry.
 - Country: Italy
2. Subject: University of Milano_Bicocca
 - Start date: 091995
 - End date: 092000
 - Qualification: Bachelor Degree in Industrial Biotechnology
 - Organisation:
 - Country: Italy

Additional information

Publications

A subcellular proteome atlas of the yeast *Komagataella phaffii*. Valli M, Grillitsch K, Grünwald_Gruber C, Tatto NE, Hrobath B, Klug L, Ivashov V, Hauzmayer S, Köller M, Tir N, Leisch F, Gasser B, Graf AB, Altmann F, Daum G, Mattanovich D. *FEMS Yeast Res.* 2020 Jan 10. pii: foaa001. doi: 10.1093/femsyr/foaa001. [Epub ahead of print] The secretome of *Pichia pastoris* in fed_batch cultivations is largely independent of the carbon source but changes quantitatively over cultivation time. Burgard J, Grünwald_Gruber C, Altmann F, Zanghellini J, Valli M, Mattanovich D, Gasser B. *Microb Biotechnol.* 2019 Nov 6. doi: 10.1111/1751_7915.13499. [Epub ahead of print] A single Gal4_like transcription factor activates the Crabtree effect in *Komagataella phaffii*. Ata Ö, Rebnegger C, Tatto NE, Valli M, Mairinger T, Hann S, Steiger MG, Çalık P, Mattanovich D. *Nat Commun.* 2018 Nov 21;9(1):4911. doi: 10.1038/s41467_018_07430_4. Identification and characterization of the *Komagataella phaffii* mating pheromone genes. Heisteringer L, Moser J, Tatto NE, Valli M, Gasser B, Mattanovich D. *FEMS Yeast Res.* 2018 Aug 1;18(5). doi: 10.1093/femsyr/foy051. Biomarkers allow detection of nutrient limitations and respective supplementation for elimination in *Pichia pastoris* fed_batch cultures. Burgard J, Valli M, Graf AB, Gasser B, Mattanovich D. *Microb Cell Fact.* 2017 Jul 11;16(1):117. doi: 10.1186/s12934_017_0730_9. Curation of the genome annotation of *Pichia pastoris* (*Komagataella phaffii*) CBS7435 from gene level to protein function. Valli M, Tatto NE, Peymann A, Gruber C, Landes N, Ekker H, Thallinger GG, Mattanovich D, Gasser B, Graf AB. *FEMS Yeast Res.* 2016 Sep;16(6). pii: fow051. doi: 10.1093/femsyr/fow051. Epub 2016 Jul 6. *Pichia pastoris* Exhibits High Viability and a Low Maintenance Energy Requirement at Near_Zero Specific Growth Rates. Rebnegger C, Vos T, Graf AB, Valli M, Pronk JT,

Daran_Lapujade P, Mattanovich D. Appl Environ Microbiol. 2016 Jul 15;82(15):4570_4583. doi: 10.1128/AEM.00638_16. Print 2016 Aug 1. Complete genome sequence and transcriptome regulation of the pentose utilizing yeast *Sugiyamaella lignohabitans*. Bellasio M, Peymann A, Steiger MG, Valli M, Sipiczki M, Sauer M, Graf AB, Marx H, Mattanovich D. FEMS Yeast Res. 2016 Jun;16(4). pii: fow037. doi: 10.1093/femsyr/fow037. Epub 2016 Apr 17. Systems_level organization of yeast methylotrophic lifestyle. Rußmayer H, Buchetics M, Gruber C, Valli M, Grillitsch K, Modarres G, Guerrasio R, Klavins K, Neubauer S, Drexler H, Steiger M, Troyer C, Al Chalabi A, Kriebiel G, Sonntag D, Zellnig G, Daum G, Graf AB, Altmann F, Koellensperger G, Hann S, Sauer M, Mattanovich D, Gasser B. BMC Biol. 2015 Sep 23;13:80. doi: 10.1186/s12915_015_0186_5. *Pichia pastoris* regulates its gene-specific response to different carbon sources at the transcriptional, rather than the translational, level. Prielhofer R, Cartwright SP, Graf AB, Valli M, Bill RM, Mattanovich D, Gasser B. BMC Genomics. 2015 Mar 11;16:167. doi: 10.1186/s12864_015_1393_8. In *Pichia pastoris*, growth rate regulates protein synthesis and secretion, mating and stress response. Rebnegger C, Graf AB, Valli M, Steiger MG, Gasser B, Maurer M, Mattanovich D. Biotechnol J. 2014 Apr;9(4):511_25. doi: 10.1002/biot.201300334. Epub 2014 Jan 14. The secretory pathway: exploring yeast diversity. Delic M, Valli M, Graf AB, Pfeffer M, Mattanovich D, Gasser B. FEMS Microbiol Rev. 2013 Nov;37(6):872_914. doi: 10.1111/1574_6976.12020. Epub 2013 Apr 12. Advances in molecular tools for the use of *Zygosaccharomyces bailii* as host for biotechnological productions and construction of the first auxotrophic mutant. Dato L, Branduardi P, Passolunghi S, Cattaneo D, Riboldi L, Frascotti G, Valli M, Porro D. FEMS Yeast Res. 2010 Nov;10(7):894_908. doi: 10.1111/j.1567_1364.2010.00668.x. Divergent genetic control of protein solubility and conformational quality in *Escherichia coli*. García_Fruitós E, Martínez-Alonso M, González_Montalbán N, Valli M, Mattanovich D, Villaverde A. J Mol Biol. 2007 Nov 16;374(1):195_205. Epub 2007 Sep 8. Improvement of lactic acid production in *Saccharomyces cerevisiae* by cell sorting for high intracellular pH. Valli M, Sauer M, Branduardi P, Borth N, Porro D, Mattanovich D. Appl Environ Microbiol. 2006 Aug;72(8):5492_9. Lactate production yield from engineered yeasts is dependent from the host background, the lactate dehydrogenase source and the lactate export. Branduardi P, Sauer M, De Gioia L, Zampella G, Valli M, Mattanovich D, Porro D. Microb Cell Fact. 2006 Jan 30;5:4. Intracellular pH distribution in *Saccharomyces cerevisiae* cell populations, analyzed by flow cytometry. Valli M, Sauer M, Branduardi P, Borth N, Porro D, Mattanovich D. Appl Environ Microbiol. 2005 Mar;71(3):1515_21. Differential gene expression in recombinant *Pichia pastoris* analysed by heterologous DNA microarray hybridisation. Sauer M, Branduardi P, Gasser B, Valli M, Maurer M, Porro D, Mattanovich D. Microb Cell Fact. 2004 Dec 20;3(1):17. Production of L_ascorbic acid by metabolically engineered *Saccharomyces cerevisiae* and *Zygosaccharomyces bailii*. Sauer M, Branduardi P, Valli M, Porro D. Appl Environ Microbiol. 2004 Oct;70(10):6086_91. The yeast *Zygosaccharomyces bailii*: a new host for heterologous protein production, secretion and for metabolic engineering applications. Branduardi P, Valli M, Brambilla L, Sauer M, Alberghina L, Porro D FEMS Yeast Res. 2004 Jan;4(4_5):493_504.

Projects

Engineering of protein secretion in *Pichia pastoris*; Cellular Mechanisms of Regulation. *Pichia pastoris* Cell Factory for Protein Production. Cross_Species Comparison of Expression System. OPTIPRO: Optimisation of a platform for the production of therapeutic proteins. Analysis of the intracellular pH of yeast cells in stress condition.

Memberships

Other Relevant Information