

Krogerus, Kristoffer

Date and place of birth: 06.06.1987, Helsinki
Address: Kaurakaski 7, 02340 Espoo, Finland
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Education and degrees awarded

09/2007 – 05/2013 **Master of Science**, Aalto University School of Chemical Technology
Major: Bioprocess Engineering and Food Engineering
Total GPA: 4.45 / 5
Title of Master's Thesis: Contribution of wort valine to diacetyl levels in wort during brewery fermentation

Linguistic skills

Swedish (mother tongue), English (fluent), Finnish (fluent)

Current position

04/2014 - **Aalto University School of Chemical Technology**, PhD Student
10/2013 - **VTT Technical Research Centre**, Research Scientist

- Planning and conducting research on the generation and characterization of newly generated interspecific brewing yeast hybrids.
- Title of PhD Thesis: Elucidating flavour formation and stress tolerance in brewing yeast hybrids
- Grants from Alfred Kordelinin Säätiö and Svenska Kulturfonden

- Planning and conducting research on the modeling of diacetyl formation and removal during brewing processes.
- Grant from Tor-Magnus Enarin Säätiö

Previous work experience

03/2013 – 08/2013 **Aalto University School of Chemical Technology**, Research Assistant

- Planning and lecturing of the master's level course 'Fermentation processes' (KE-30.4500 Käymisprosessit).
- Planning and conducting research on the detoxification of hemicellulose hydrolysates and its effect on microbial fermentability.

- 09/2012 – 03/2013 **VTT Technical Research Centre**, Master's Thesis worker
- Planned, organized and conducted research on the influence of wort amino acids on diacetyl production during fermentation of brewer's wort with lager yeast.
- 09/2011 – 08/2012 **MTT (Maa- ja elintarviketalouden tutkimuskeskus)**, Research Assistant
- Duties included research and development of life cycle assessment methodology, as well as the performance of life cycle assessments, for the assessment of climate and environmental impacts of bio-based products and supply chains.
- 05/2010 – 08/2011 **MTT (Maa- ja elintarviketalouden tutkimuskeskus)**, Research Trainee

Research grants

Tor-Magnus Enarin Säätiö, October 2013 – March 2014, 12000€

Alfred Kordelinin Säätiö, April 2014 – March 2015, 22000€

Svenska Kulturfonden, April 2015 – March 2016, 21000€

Alfred Kordelinin Säätiö, April 2016 – March 2017, 24000€

Merits in teaching

Planning and lecturing of the 3 credit master's level course 'Fermentation processes' (KE-30.4500 Käymisprosessit) at the Aalto University School of Chemical Technology during spring 2013.

Awards, prizes and honours

Juniorivesipalkinto 2006, Suomen Vesiyhdistys ry

Significant publications

Krogerus, K., Gibson, B. (2013) Influence of valine and other amino acids on total diacetyl and 2,3-pentanedione levels during fermentation of brewer's wort. *Applied Microbiology and Biotechnology* 97: 6919-6930.

Gibson, B., Storgårds, E., **Krogerus, K.**, Vidgren, V. (2013) Comparative physiology and fermentation performance of Saaz and Froberg lager yeast strains and the parental species *Saccharomyces eubayanus*. *Yeast* 30: 255-266.

Krogerus, K., Gibson, B. (2013) 125th Anniversary Review: Diacetyl and its control during brewery fermentation. *Journal of the Institute of Brewing* 119: 86-97.

Gibson, B., **Krogerus, K.**, Ekberg, J., Monroux, A., Mattinen, L., Rautio, J., Vidgren, V. (2015) Variation in α -acetolactate production within the hybrid lager yeast group *Saccharomyces pastorianus* and affirmation of the central role of the *ILV6* gene. *Yeast* 32: 301-316.

Krogerus, K., Gibson, B., Hytönen, E. (2015) An improved model for prediction of fermentation and total diacetyl profile during brewery fermentation. *Journal of the American Society of Brewing Chemists* 73: 90-99.

Krogerus, K., Magalhães, F., Vidgren, V., Gibson, B. (2015) New lager yeast strains generated by interspecific hybridization. *Journal of Industrial Microbiology and Biotechnology* 42: 769-778.

Krogerus, K., Arvas, M., De Chiara, M., Magalhães, F., Mattinen, L., Oja, M., Vidgren, V., Yue, J., Liti, G., Gibson, B. (2016) Ploidy influences the functional attributes of de novo lager yeast hybrids. *Applied Microbiology and Biotechnology* 100: 7203-7222.