Short CV – Prof. Dr. Andreas Keller

Prof. Dr. Andreas Keller is Chair for Clinical Bioinformatics at Saarland University (Germany), leads the bioinformatics group at the Helmholtz Institute for Pharmaceutical Research (HIPS), and is guest professor at Stanford University in the department of Neurobiology and Neurology. At Saarland university, he is member of the Medical Faculty and the Saarland Informatics Campus since 2013. Keller studied computational biology at his alma mater. Likewise at Saarland University, Keller did his Ph.D in Computational Biology and qualified as a professor in Human Genetics. Before joining the university, Keller was VP for Biomarker Discovery at the Heidelberg-based company febit GmbH. From 2011 on, he was director for diagnostic innovation at the Siemens Healthineers Headquarter in Erlangen, Germany, where he was responsible for disruptive developments in molecular diagnosis and healthcare IT systems. In 2016, he co-founded the molecular diagnostic company Hummingbird Diagnostics, a company with focus on blood-borne non-coding RNA biomarkers for early-stage lung cancer, neurodegenerative disorders (Alzheimer's and Parkinson's Disease) as well as heart failure. Keller's Research focus is the development of novel multi-parametric diagnostic tests using machine learning and deep learning techniques. In particular, he aims at making complex test results understandable and explainable for clinicians and patients and to integrate genomic, transcriptomic, phenomic and radiomic data. In addition to the non-coding RNA research, Keller works on models to predict resistance against antibiotics in infectious diseases from next-generation sequencing data. Keller is co-author of 277 peer-reviewed research manuscripts that get cited over 2,500 times per year. He is also innovator on 82 patent filings and granted patents in the area of biomarkers and computational approaches for diagnosing diseases and predicting the therapy response.

Personal data:

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27th June 1982, Saarbrücken (Germany), male
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Education:

2006 Bachelor in Bioinformatics
2006 Master in Bioinformatics (honors degree)
2009 Ph. D. in Bioinformatics (summa cum laude)
2012 Habilitation in Human Genetics

Career:

2002	-	2006	Research Associate, Saarland University, Center for Bioinformatics
2006	-	2009	Ph.D. Student, Saarland University, Center for Bioinformatics
2010	-	2011	VP Biomarker Discovery, febit GmbH, Heidelberg
2011	-	2013	Director Diagnostic Information, Siemens Healthineers, Erlangen
2013	**-**	**present**	**Professor for Clinical Bioinformatics, Saarland University**
2013	-	present	Steering committee of the Centre of Bioinformatics, Saarland University
2016	-	present	Co-founder and Scientific Lead Hummingbird DX, Heidelberg, Boston
2018	-	2021	Speaker of the Center for Bioinformatics, Saarland University

Short CV – Prof. Dr. Andreas Keller

Miscellaneous:

Associate Executive Editor in Chief, Genomics, Proteomics & Bioinformatics (6.6 IF)
Co-Author on 277 Publications, ~2,500 citations per year, H-index of 63
Inventor on 82 patents, thereof 38 granted patents
Germany – Land of Ideas Award 2017
Merck GFI Award 2015
Günther Hotz Medal, 2006

List of 10 relevant publications:

Kern, F., Fehlmann, T., Violich, I., Alsop, E., Hutchins, E., Kahraman, M., Grammes, N., Guimarães, P., Backes, C., Poston, K., Casey, B., Balling, R., Geffers, L., Krüger, R., Galasko, D., Mollenhauer, B., Meese, E., Wyss-Coray, T., Craig, D., Van Keuren-Jensen, K., Keller, A. Deep sncRNA-seq of the PPMI cohort to study Parkinson's disease progression. Nature Aging. (2021)

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Guimarães P, Keller A, Fehlmann T, Lammert F, Casper M. Deep-learning based detection of gastric precancerous conditions. Gut. (2019)

Alles, J., Fehlmann, T., Fischer, U., Backes, C., Galata, V., Minet, M., Hart, M., Abu-Halima, M., Grässer, FA., Lenhof, HP., Keller, A., Meese, E. An estimate of the total number of true human miRNAs. Nucleic Acids Res. 2019 Apr 23;47(7):3353-3364. doi: 10.1093/nar/gkz097 (2019)

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