André F. Rendeiro

Curriculum Vitae

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andre-rendeiro.com

Current position

2014-present **PhD student**, *CeMM Research Centre for Molecular Medicine of the Austrian Academy of Sciences*, Vienna, Austria, Christoph Bock's lab.

Education

2012-2014 **Masters in Molecular and Cell Biology**, *University of Aveiro*, Portugal.

2008-2012 **Bachelor in Biology**, *University of Aveiro*, Portugal.

Key publications

Christian Schmidl*, Gregory I Vladimer*, André F. Rendeiro*, Susanne Schnabl* et al., **Combined chemosensitivity and chromatin profiling prioritizes drug combinations in CLL**. Nature Chemical Biology (2019) doi:10.1038/s41589-018-0205-2

Paul Datlinger, André F. Rendeiro*, Christian Schmidl* et al., **Pooled CRISPR screening with single-cell transcriptome readout**. Nature Methods (2017) doi:10.1038/nmeth.4177

André F. Rendeiro*, Christian Schmidl*, Jonathan C. Strefford* et al., **Chromatin accessibility maps of chronic lymphocytic leukaemia identify subtype-specific epigenome signatures and transcription regulatory networks**. Nature Communications (2016) doi:10.1038/ncomms11938

Christian Schmidl*, André F. Rendeiro*, Nathan C Sheffield, Christoph Bock. 2015. **ChIPmentation: fast, robust, low-input ChIP-seq for histones and transcription factors**. Nature Methods (2016) doi:10.1038/nmeth.3542

* *equal contributions*

Skills

Computational Biology

Languages Experienced in *Python* and *R* programming

Applications ATAC-/ChIP-/RNA-seq data analysis; scRNA-seq analysis; Statistical analysis; Machine learning; Software development

Molecular Biology

Techniques Chromatin imunoprecipitation (ChIP), NGS library preparation, Western blotting, PCR, molecular cloning, chemical screening, zebrafish and *Nematostella* handling and microinjection, immunohistochemistry, fluorecence and confocal microscopy

All publications

Peer reviewed

Christian Schmidl*, Gregory I Vladimer*, André F. Rendeiro*, Susanne Schnabl*, Thomas Krausgruber, Christina Taubert, Nikolaus Krall, Tea Pemovska, Mohammad Araghi, Berend Snijder, Rainer Hubmann, Anna Ringler, Kathrin Runggatscher, Dita Demirtas, Oscar Lopez de la Fuente, Martin Hilgarth, Cathrin Skrabs, Edit Porpaczy, Michaela Gruber, Gregor Hoermann, Stefan Kubicek, Philipp B Staber, Medhat Shehata, Giulio Superti-Furga, Ulrich Jäger, Christoph Bock. **Combined chemosensitivity and chromatin profiling prioritizes drug combinations in CLL**. Nature Chemical Biology. (2019) doi:10.1038/s41589-018-0205-2

Tahsin Stefan Barakat, Florian Halbritter, Man Zhang, André F. Rendeiro, Christoph Bock, Ian Chambers. (2017). **Functional dissection of the enhancer repertoire in human embryonic stem cells**. Cell Stem Cell. (2018) 10.1016/j.stem.2018.06.014

Paul Datlinger, André F. Rendeiro*, Christian Schmidl*, Thomas Krausgruber, Peter Traxler, Johanna Klughammer, Linda C Schuster, Amelie Kuchler, Donat Alpar, Christoph Bock. **Pooled CRISPR screening with single-cell transcriptome readout**. Nature Methods. (2017) doi:10.1038/nmeth.4177

Roman A Romanov, Amit Zeisel, Joanne Bakker, Fatima Girach, Arash Hellysaz, Raju Tomer, Alán Alpár, Jan Mulder, Frédéric Clotman, Erik Keimpema, Brian Hsueh, Ailey K Crow, Henrik Martens, Christian Schwindling, Daniela Calvigioni, Jaideep S Bains, Zoltán Máté, Gábor Szabó, Yuchio Yanagawa, Ming-Dong Zhang, André F. Rendeiro, Matthias Farlik, Mathias Uhlén, Peer Wulff, Christoph Bock, Christian Broberger, Karl Deisseroth, Tomas Hökfelt, Sten Linnarsson, Tamas L Horvath, Tibor Harkany. **Molecular interrogation of hypothalamic organization reveals distinct dopamine neuronal subtypes**. Nature Neuroscience. (2016) doi:10.1038/nn.4462

Clara Jana-Lui Busch, Tim Hendrikx, David Weismann, Sven Jäckel, Sofie M. A. Walenbergh, André F. Rendeiro, Juliane Weißer, Florian Puhm, Anastasiya Hladik, Laura Göderle, Nikolina Papac-Milicevic, Gerald Haas, Vincent Millischer, Saravanan Subramaniam, Sylvia Knapp, Keiryn L. Bennett, Christoph Bock, Christoph Reinhardt, Ronit Shiri-Sverdlov, Christoph J. Binder. **Malondialdehyde epitopes are sterile mediators of hepatic inflammation in hypercholesterolemic mice**. Hepatology. (2017) doi:10.1002/hep.28970

André F. Rendeiro*, Christian Schmidl*, Jonathan C. Strefford*, Renata Walewska, Zadie Davis, Matthias Farlik, David Oscier, Christoph Bock. **Chromatin accessibility maps of chronic lymphocytic leukaemia identify subtype-specific epigenome signatures and transcription regulatory networks**. Nature Communications. 7:11938 (2016) doi:10.1038/ncomms11938

Christian Schmidl*, André F. Rendeiro*, Nathan C Sheffield, Christoph Bock. 2015. **ChIPmentation: fast, robust, low-input ChIP-seq for histones and transcription factors**. Nature Methods. doi:10.1038/nmeth.3542

Michaela Schwaiger, Anna Schönauer, André F. Rendeiro, Carina Pribitzer, Alexandra Schauer, Anna Gilles, Johannes Schinko, David Fredman, and Ulrich Technau. **Evolutionary conservation of the eumetazoan gene regulatory landscape**. Genome Research, 1–12. doi:10.1101/gr.162529.113

* *equal contributions*

Non-peer reviewed

Sara Sdelci, André F. Rendeiro, Philipp Rathert, Gerald Hofstaetter, Anna Ringler, Herwig P Moll, Wanhui You, Kristaps Klavins, Bettina Guertl, Matthias Farlik, Sandra Schick, Freya Klepsch, Matthew Oldach, Pisanu Buphamalai, Fiorella Schischlik, Peter Majek, Katja Parapatics, Christian Schmidl, Michael Schuster, Thomas Penz, Dennis L Buckley, Otto Hudecz, Richard Imre, Robert Kralovics, Keiryn L Bennett, Andre C Mueller, Karl Mechtler, Joerg Menche, James E Bradner, Georg E Winter, Emilio Casanova, Christoph Bock, Johannes Zuber, Stefan Kubicek, **MTHFD1 is a genetic interactor of BRD4 and links folate metabolism to transcriptional regulation**. BiorXiv (2018) doi:10.1101/439422

Alexander Swoboda, Robert Soukup, Katharina Kinslechner, Bettina Wingelhofer, David Schoerghofer, Christina Sternberg, Ha Pham, Maria Vallianou, Jaqueline Horvath, Dagmar Stoiber, Lukas Kenner, Lionel Larue, Valeria Poli, Friedrich Beermann, Takashi Yokota, Stefan Kubicek, Thomas Krausgruber, André F. Rendeiro, Christoph Bock, Rainer Zenz, Boris Kovacic, Fritz Aberger, Markus Hengstschlaeger, Peter Petzelbauer, Mario Mikula, Richard Moriggl. **STAT3 promotes melanoma metastasis by CEBP-induced repression of the MITF pigmentation pathway**. BiorXiv (2018) doi: 10.1101/422832

André F. Rendeiro, Pavla Navratilova, Eric Thompson (2014). **Chromatin preparation for ChIP-seq in *Oikopleura dioica***. figshare. http://dx.doi.org/10.6084/m9.figshare.884562

Communications

Conference talks

André F. Rendeiro. **Chromatin mapping and single-cell immune profiling define the temporal dynamics of Ibrutinib response in CLL**. *Frontiers in Single Cell Genomics Meeting - Cold Spring Harbour Asia*, November 2018, Suzhou, China.

André F. Rendeiro. **CROP-seq: updates on the single cell CRISPR screening method**. *10X User Group Meeting 2018*, April 2018, EMBL, Heidelberg, Germany.

André F. Rendeiro. **Pooled CRISPR screening with single-cell transcriptome readout**. *SLAS 2018*, February 2018, San Diego, USA.

André F. Rendeiro. **Large-scale ATAC-seq profiling to identify disease subtypes, regulatory networks and monitoring treatment in CLL**. *Illumina User Group Meeting 2017*, February 2018, Switzerland.

Paul Datlinger, André F. Rendeiro*, Christian Schmidl*, Thomas Krausgruber, Peter Traxler, Johanna Klughammer, Linda C Schuster, Amelie Kuchler, Donat Alpar, Christoph Bock. **Pooled CRISPR screening with single-cell transcriptome readout**. *Ascona Workshop 2017*, May 2017, Ascona, Switzerland.

André F. Rendeiro. **Large-scale chromatin profiling uncovers heterogeneity of molecular phenotypes and gene regulatory networks of chronic lymphocytic leukemia**. *Illumina User Meeting*, February 2017, Cologne, Germany.

Michaela Schwaiger, Anna Schönauer, André F. Rendeiro, Carina Pribitzer, Alexandra Schauer, Anna Gilles, Johannes Schinko, David Fredman, and Ulrich Technau. **Evolutionary conservation of the eumetazoan gene regulatory landscape**. *XVIII Portuguese Genetics Society Meeting*, June 2013. Porto, Portugal

Conference posters

Christian Schmidl*, André F. Rendeiro*, Gregory I Vladimer*, Thomas Krausgruber, Tea Pemovska, Nikolaus Krall, Berend Snijder, Oscar Lopez de la Fuente, Anna Ringler, Stefan Kubicek, Philipp B. Staber, Medhat Shehata, Giulio Superti-Furga, Ulrich Jäger, Christoph Bock. **Combined chromatin accessibility and chemosensitivity profiling identifies targetable pathways and rational drug combinations in Ibrutinib-treated chronic lymphocytic leukemia**. *Young Scientist Association of the Medical University of Vienna PhD Symposia*, June 2017, Vienna, Austria.

André F. Rendeiro*, Christian Schmidl*, Jonathan C. Strefford*, Renata Walewska, Zadie Davis, Matthias Farlik, David Oscier, Christoph Bock. **Large-scale chromatin profiling uncovers heterogeneity of molecular phenotypes and gene regulatory networks of chronic lymphocytic leukemia**. *Young Scientist Association of the Medical University of Vienna PhD Symposia*, June 2016, Vienna, Austria. https://doi.org/10.6084/m9.figshare.3479528.v1 **Best poster award in "Malignant Diseases" category**.

André F. Rendeiro*, Christian Schmidl*, Jonathan C. Strefford*, Renata Walewska, Zadie Davis, Matthias Farlik, David Oscier, Christoph Bock. **Large-scale chromatin profiling uncovers heterogeneity of molecular phenotypes and gene regulatory networks of chronic lymphocytic leukemia**. *Keystone Symposia on Chromatin and Epigenetics*, March 2016, Whistler, Vancouver, Canada. https://doi.org/10.6084/m9.figshare.3479528.v1

Anna Schönauer, André F. Rendeiro, Michaela Schwaiger, Ulrich Technau. **Identification of cis-regulatory elements in the sea anemone *Nematostella vectensis***. *Evonet Symposium*, September 2012, Vienna Austria. http://dx.doi.org/10.6084/m9.figshare.107026

* *equal contributions*

Additional experience

Scientific Activity

2013-2014 **The role of E2F regulation and H3K79 methylation in *Oikopleura dioica*'s cell cycle modes**, *Sars International Centre for Marine Molecular Biology, Bergen, Norway*, Eric Thompson's lab.

2011-2012 **Identification of cis-regulatory elements in *Nematostella vectensis* using ChIP-seq**, *Dept. of Molecular Evolution and Development, University of Vienna, Austria*, Uli Technau's lab.

2010-2011 **Tol2-mediated zebrafish transgenesis for studies in protein mistranslation**, *RNA Biology Laboratory, Biology Department, University of Aveiro, Portugal*, Manuel Santos' lab.

2009-2010 **Transciptome studies with microarrays in heat-shocked yeast**, *RNA Biology Laboratory, Biology Department, University of Aveiro, Portugal*, Manuel Santos' lab.

Associative/Administrative

2010-2012 Member of the Biology department counsel, University of Aveiro

2009-2011 Member of the undergraduate Biology committee, University of Aveiro

Advanced courses

September 2015 — Summer School on Machine Learning for Personalised Medicine - Marie Curie Initial Training Network, Manchester, UK

September 2012 — Scientific writing course - University of Aveiro

Awards/Scholarships

June 2016 — **Best poster award - "Malignant diseases" category**, *YSA Symposium*.
Young Scientist Association of the Medical University of Vienna

June 2016 — **Best artwork award - "Illustrations and digital simulations" category**, *ScienceArt Competition of the YSA Symposium*.
Young Scientist Association of the Medical University of Vienna

2013-2014 — **Erasmus studies mobility program scholarship**.
European Commission

2011-2012 — **Erasmus intership mobility program scholarship**.
European Commission

2009-2010 — **"Integration into Research" Grant**.
Science and Technology Foundation - Portugal

Languages

Portuguese	Native speaker	
English	Very good	
Spanish	Conversational	
German	Basic	*Basic words and phrases only*
French	Basic	*Basic words and phrases only*

Other interests

- Ballroom dancing
- Singing
- Choral conducting
- Cinema
- Opera
- Piano playing