

Carrie Bernecky, Ph.D.

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Research Experience

- 2018 – present** **Assistant Professor**
Institute of Science and Technology Austria, Am Campus 1, 3400
Klosterneuburg, Austria
- 2011 – 2017** **Postdoctoral Research Assistant**
Gene Center, Department of Biochemistry, Ludwig Maximilians
University Munich and Max Planck Institute for Biophysical Chemistry,
Göttingen (Advisor: Dr. Patrick Cramer)
- 2010 – 2011** **Postdoctoral Research Assistant**
Department of Chemistry and Biochemistry, University of Colorado,
Boulder (Advisor: Dr. Dylan Taatjes)
- 2004 – 2010** **Graduate Research**
Department of Chemistry and Biochemistry, University of Colorado,
Boulder (Advisor: Dr. Dylan Taatjes)
- 2001 – 2004** **Undergraduate Research**
Division of Nutritional Sciences, Cornell University (Advisor: Dr. J.T.
Brenna)

Education

- 2004 – 2010** **Ph.D. in Biochemistry**
University of Colorado at Boulder, Boulder, CO
Thesis: Molecular architecture of the human Mediator- RNA
polymerase II-TFIIF assembly
- 2000 – 2004** **B.A. in Chemistry and Biology**
Graduated with honors and distinction.
Cornell University, Ithaca, NY

Awards and Fellowships

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| 2012 – 2014 | Humboldt Research Fellowship |
| 2005 – 2007 | NIH Molecular Biophysics Training Grant |
| 2000 – 2004 | Dean's List Cornell University |
| 2004 | Merck Index Award |
| 2002 | Hughes Undergraduate Research Scholar (Cornell-HHMI) |

Publications

Bernecky C, Plitzko JM, Cramer P. Structure of a transcribing RNA polymerase II-DSIF complex reveals a multidentate DNA-RNA clamp. *Nat Struct Mol Biol*. 2017 Sep 11. doi: 10.1038/nsmb.3465.

Xu Y, Bernecky C, Lee CT, Maier KC, Schwalb B, Tegunov D, Plitzko JM, Urlaub H, Cramer P. Architecture of the RNA polymerase II-Paf1C-TFIIS transcription elongation complex. *Nat Commun*. 2017 Jun 6;8:15741. doi: 10.1038/ncomms15741.

Engel C, Gubbey T, Neyer S, Sainsbury S, Oberthuer C, Baejen C, Bernecky C, Cramer P. Structural Basis of RNA Polymerase I Transcription Initiation. *Cell*. 2017 Mar 23;169(1):120-131.e22. doi: 10.1016/j.cell.2017.03.003.

Bernecky C, Herzog F, Baumeister W, Plitzko JM, Cramer P. Structure of transcribing mammalian RNA polymerase II. *Nature*. 2016 Jan 28;529(7587):551-4. doi: 10.1038/nature16482.

Sainsbury S*, Bernecky C*, Cramer P. Structural basis of transcription initiation by RNA polymerase II. *These authors contributed equally to this work. *Nat Rev Mol Cell Biol*. 2015 Mar;16(3):129-43. doi: 10.1038/nrm3952.

Bernecky C, Cramer P. Struggling to let go: a non-coding RNA directs its own extension and destruction. *EMBO J*. 2013 Mar 20;32(6):771-2. doi: 10.1038/emboj.2013.36.

Bernecky C, Taatjes DJ. Activator-mediator binding stabilizes RNA polymerase II orientation within the human mediator-RNA polymerase II-TFIIF assembly. *J Mol Biol*. 2012 Apr 13;417(5):387-94. doi: 10.1016/j.jmb.2012.02.014.

Bernecky C, Grob P, Ebmeier CC, Nogales E, Taatjes DJ. Molecular architecture of the human Mediator-RNA polymerase II-TFIIF assembly. *PLoS Biol*. 2011 Mar 9(3): e1000603. doi: 10.1371/journal.pbio.1000603.

Meyer KD, Lin SC, Bernecky C, Gao Y, Taatjes DJ. p53 activates transcription by directing structural shifts in Mediator. *Nat Struct Mol Biol*. 2010 Jun;17(6):753-60. doi: 10.1038/nsmb.1816.

Knuesel MT, Meyer KD, Bernecky C, Taatjes DJ. The human CDK8 subcomplex is a molecular switch that controls Mediator co-activator function. *Genes Dev.* 2009 Feb 15;23(4):439-51. doi: 10.1101/gad.1767009.

Conference Presentations and Invited Talks

- 2019** German-Israeli Helmholtz Research School (SignGene) Winter School, Nahsholim, Israel
- 2019** Vienna Biocenter Recess, Hernstein, Austria
- 2018** Vienna Biocenter Postdoc Retreat, Graz, Austria
- 2018** Seminar talk at the University of Vienna, Vienna, Austria
- 2018** Vienna RNA Spring Meeting, Retz, Austria
- 2018** Seminar talk at EMBL Grenoble, Grenoble, France
- 2017** Hochhausen Fall Meeting, Trifels, Germany
- 2016** Seminar talk at the MRC Laboratory of Molecular Biology, Cambridge, UK
- 2016** Seminar talk at the Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland