



PROF. DR. CHASE BEISEL

Group Leader

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Education

2009 PhD, Chemical Engineering, California Institute of Technology, Pasadena, CA, USA
2004 BSc, Chemical Engineering, Iowa State University, Ames, IA, USA

Positions

2019 - present Scientific advisory board member, Benson Hill, St. Louis, MO, USA
2018 - present Director, HIRI Graduate Program "RNA & Infection"
2018 - present Group Leader, Helmholtz Institute for RNA-based Infection Research (HIRI), Würzburg, Germany
2018 - present Professor (W2), Faculty of Medicine, University of Würzburg, Germany
2017 - 2018 Associate Professor, Department of Chemical and Biomolecular Engineering, North Carolina State University (NCSU), Raleigh, NC, USA
2015 - present Co-founder and scientific advisory board member, Locus Biosciences, Morrisville, NC, USA
2011 - 2017 Assistant Professor, Dept. of Chemical and Biomolecular Engineering, NCSU, Raleigh, NC, USA

Committee Work

2020 Deputy Speaker, Topic 1, Helmholtz Centre for Infection Research, Braunschweig, Germany
2019 Organizer, International Conference on CRISPR Technologies, Würzburg, Germany
2017 Organizer, International Conference on CRISPR Technologies, Raleigh, NC, USA
2016 - 2017 Instructor, Cold Spring Harbor Laboratory Synthetic Biology Summer School, NY, USA
2016 Topical A Conference Chair, AIChE Annual Conference, San Francisco, CA, USA

Awards & Honors

ERC Consolidator Award (2020), AIChE Program Development Service Award (2018), D.I.C. Wang Young Investigator Award (2018), Camille Dreyfus Teacher-Scholar Award (2017), Bay Area Lyme Foundation Emerging Leader Award (2016), Sigma Xi Faculty Research Award (2016), NCSU Faculty Scholar (2015 - 2016), NSF CAREER Award (2015), Gordon & Betty Moore Foundation Fellow, Life Sciences Research Foundation (2010 - 2011)

Selected Publications

Collias D, Leenay RT, Slotkowski RA, Zuo Z, Collins SP, McGirr BA, Liu J, **Beisel CL** (2020)
A positive, growth-based PAM screen identifies noncanonical motifs recognized by the S. pyogenes Cas9
Science Advances 6(29): eabb4054

Liao C, Ttofali F, Slotkowski RA, Denny SR, Cecil TD, Leenay RT, Keung AJ, **Beisel CL** (2019)
Modular one-pot assembly of CRISPR arrays enables library generation and reveals factors influencing crRNA biogenesis
Nature Communications 10(1): 2948

Marshall R, Maxwell CS, Collins SP, Jacobsen T, Luo ML, Begemann MB, Gray BN, January E, Singer A, He Y, **Beisel CL**, Noireaux V (2018)
Rapid and Scalable Characterization of CRISPR Technologies Using an E. coli Cell-Free Transcription-Translation System
Molecular Cell 69(1): 146-157

Leenay RT, Maksimchuk KR, Slotkowski RA, Agrawal RN, Gomaa AA, Briner AE, Barrangou R, **Beisel CL** (2016)
Identifying and Visualizing Functional PAM Diversity across CRISPR-Cas Systems
Molecular Cell 62(1): 137-147

Luo ML, Mullis AS, Leenay RT, **Beisel CL** (2015)
Repurposing endogenous type I CRISPR-Cas systems for programmable gene repression
Nucleic Acids Research 43(1): 674-681