

Curriculum Vitae **Carsten Grashoff**

Personal Data

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Selection of peer-reviewed research articles:

1. Sadhanasatish T, Augustin K, Windgasse L, *et int*, **Grashoff C**. A molecular optomechanics approach reveals functional relevance of force transduction across talin and desmoplakin. *Sci Adv*. 2023 Jun 23;9(25):eadg3347. doi: 10.1126/sciadv.adg3347.
2. Fischer LS, Schlichthaerle T, Chrostek-Grashoff A, **Grashoff C**. Peptide-PAINT Enables Investigation of Endogenous Talin with Molecular Scale Resolution in Cells and Tissues. *Chembiochem*. 2021 Oct 1;22(19):2872-2879. doi: 10.1002/cbic.202100301.
3. Fischer LS, Rangarajan S, Sadhanasatish T, **Grashoff C**. Molecular Force Measurement with Tension Sensors. *Annu Rev Biophys*. 2021 May 6;50:595-616. doi: 10.1146/annurev-biophys-101920-064756.
4. Fischer LS, Klingner C, Schlichthaerle T, *et int*, **Grashoff C**. Quantitative single-protein imaging reveals molecular complex formation of integrin, talin, and kindlin during cell adhesion. *Nat Commun*. 2021 Feb 10;12(1):919. doi: 10.1038/s41467-021-21142-2.
5. Kanoldt V, Kluger C, Barz C, *et int*, **Grashoff C**. Metavinculin modulates force transduction in cell adhesion sites. *Nat Commun*. 2020 Dec 17;11(1):6403. doi: 10.1038/s41467-020-20125-z.
6. Price AJ, Cost AL, Ungewiß H, *et int*, **Grashoff C**. Mechanical loading of desmosomes depends on the magnitude and orientation of external stress. *Nat Commun*. 2018 Dec 11;9(1):5284. doi: 10.1038/s41467-018-07523-0.
7. Ringer P, Weiß A, Cost AL, *et int*, **Grashoff C**. Multiplexing molecular tension sensors reveals piconewton force gradient across talin-1. *Nat Methods*. 2017 Nov;14(11):1090-1096. doi: 10.1038/nmeth.4431.
8. Austen K, Ringer P, Mehlich A, *et int*, **Grashoff C**. Extracellular rigidity sensing by talin isoform-specific mechanical linkages. *Nat Cell Biol*. 2015 Dec;17(12):1597-606. doi: 10.1038/ncb3268.
9. Hoffman BD, **Grashoff C**, Schwartz MA. Dynamic molecular processes mediate cellular mechanotransduction. *Nature*. 2011 Jul 20;475(7356):316-23. doi: 10.1038/nature10316.
10. **Grashoff C**, Hoffman BD, Brenner MD, *et int*, Schwartz MA. Measuring mechanical tension across vinculin reveals regulation of focal adhesion dynamics. *Nature*. 2010 Jul 8;466(7303):263-6. doi: 10.1038/nature09198.