Carsten Grashoff

List of Publications by Year in Descending Order

23 papers	2,763 citations	14 h-index	24 g-index
24 ext. papers	3,255 ext. citations	14.1 avg, IF	5.08 L-index

#	Paper	IF	Citations
23	Piezo1 and Piezo2 foster mechanical gating of K channels. *Cell Reports*, **2021**, 37, 110070	10.6	1
22	Molecular Force Measurement with Tension Sensors. *Annual Review of Biophysics*, **2021**, 50, 595-616	21.1	9
21	PECAM-1 supports leukocyte diapedesis by tension-dependent dephosphorylation of VE-cadherin. *EMBO Journal*, **2021**, 40, e106113	13	5
20	Quantitative single-protein imaging reveals molecular complex formation of integrin, talin, and kindlin during cell adhesion. *Nature Communications*, **2021**, 12, 919	17.4	12
19	Peptide-PAINT Enables Investigation of Endogenous Talin with Molecular Scale Resolution in Cells and Tissues. *ChemBioChem*, **2021**, 22, 2872-2879	3.8	2
18	Metavinculin modulates force transduction in cell adhesion sites. *Nature Communications*, **2020**, 11, 6403	17.4	8
17	Genetically Encoded FRET-Based Tension Sensors. *Current Protocols in Cell Biology*, **2019**, 83, e85	2.3	14
16	A small proportion of Talin molecules transmit forces at developing muscle attachments in vivo. *PLoS Biology*, **2019**, 17, e3000057	9.7	33
15	Unforgettable force - crosstalk and memory of mechanosensitive structures. *Biological Chemistry*, **2019**, 400, 687-698	4.5	9
14	Mechanical loading of desmosomes depends on the magnitude and orientation of external stress. *Nature Communications*, **2018**, 9, 5284	17.4	49
13	Investigating piconewton forces in cells by FRET-based molecular force microscopy. *Journal of Structural Biology*, **2017**, 197, 37-42	3.4	41
12	Sensing the mechano-chemical properties of the extracellular matrix. *Matrix Biology*, **2017**, 64, 6-16	11.4	67
11	Multiplexing molecular tension sensors reveals piconewton force gradient across talin-1. *Nature Methods*, **2017**, 14, 1090-1096	21.6	79
10	The Piconewton Force Awakens: Quantifying Mechanics in Cells. *Trends in Cell Biology*, **2016**, 26, 838-847	18.3	51
9	How to Measure Molecular Forces in Cells: A Guide to Evaluating Genetically-Encoded FRET-Based Tension Sensors. *Cellular and Molecular Bioengineering*, **2015**, 8, 96-105	3.9	81
8	Extracellular rigidity sensing by talin isoform-specific mechanical linkages. *Nature Cell Biology*, **2015**, 17, 1597-606	23.4	209
7	Tension-sensitive actin assembly supports contractility at the epithelial zonula adherens. *Current Biology*, **2014**, 24, 1689-99	6.3	131

List of Publications

6	Generation and analysis of biosensors to measure mechanical forces within cells. *Methods in Molecular Biology*, **2013**, 1066, 169-84	1.4	21
5	Dynamic molecular processes mediate cellular mechanotransduction. *Nature*, **2011**, 475, 316-23	50.4	684
4	Measuring mechanical tension across vinculin reveals regulation of focal adhesion dynamics. *Nature* , **2010**, 466, 263-6	50.4	1031
3	Integrin-linked kinase: integrin's mysterious partner. *Current Opinion in Cell Biology*, **2004**, 16, 565-71	9	66
2	Integrin-linked kinase regulates chondrocyte shape and proliferation. *EMBO Reports*, **2003**, 4, 432-8	6.5	157
1	A small proportion of Talin molecules transmit forces to achieve muscle attachment in vivo		3