Petr Kalab

List of Publications by Year in descending order

32 papers	3,324 citations	279798 23 h-index	414414 32 g-index
34 all docs	34 docs citations	34 times ranked	3537 citing authors

#	Article	IF	Citations
1	Visualization of a Ran-GTP Gradient in Interphase and Mitotic Xenopus Egg Extracts. Science, 2002, 295, 2452-2456.	12.6	496
2	Phosphoproteome Analysis of Capacitated Human Sperm. Journal of Biological Chemistry, 2003, 278, 11579-11589.	3.4	447
3	Analysis of a RanGTP-regulated gradient in mitotic somatic cells. Nature, 2006, 440, 697-701.	27.8	339
4	The Ran GTPase regulates mitotic spindle assembly. Current Biology, 1999, 9, 481-484.	3.9	330
5	The RanGTP gradient â€“ a GPS for the mitotic spindle. Journal of Cell Science, 2008, 121, 1577-1586.	2.0	259
6	A centriole- and RanGTP-independent spindle assembly pathway in meiosis I of vertebrate oocytes. Journal of Cell Biology, 2007, 176, 295-305.	5.2	219
7	Importazole, a Small Molecule Inhibitor of the Transport Receptor Importin-Î². ACS Chemical Biology, 2011, 6, 700-708.	3.4	211
8	Selectivity mechanism of the nuclear pore complex characterized by single cargo tracking. Nature, 2010, 467, 600-603.	27.8	140
9	C9orf72 arginine-rich dipeptide repeat proteins disrupt karyopherin-mediated nuclear import. ELife, 2020, 9, .	6.0	91
10	Relative contributions of chromatin and kinetochores to mitotic spindle assembly. Journal of Cell Biology, 2009, 187, 43-51.	5.2	81
11	Characterization of Polo-like Kinase 1 during Meiotic Maturation of the Mouse Oocyte. Developmental Biology, 2000, 220, 392-400.	2.0	76
12	Epidermal Growth Factor-Receptor Tyrosine Kinase Activity Regulates Expansion of Porcine Oocyte-Cumulus Cell Complexes In Vitro1. Biology of Reproduction, 2003, 68, 797-803.	2.7	75
13	Confinement hinders motility by inducing RhoA-mediated nuclear influx, volume expansion, and blebbing. Journal of Cell Biology, 2019, 218, 4093-4111.	5.2	64
14	Dynamic organelle distribution initiates actin-based spindle migration in mouse oocytes. Nature Communications, 2020, 11, 277.	12.8	44
15	Mitotic Spindle Assembly around RCC1-Coated Beads in Xenopus Egg Extracts. PLoS Biology, 2011, 9, e1001225.	5.6	41
16	RCC1-dependent activation of Ran accelerates cell cycle and DNA repair, inhibiting DNA damageâ€“induced cell senescence. Molecular Biology of the Cell, 2016, 27, 1346-1357.	2.1	39
17	Dorsoventral polarity directs cell responses to migration track geometries. Science Advances, 2020, 6, eaba6505.	10.3	39
18	Modifications of the Mouse Zona Pellucida during Oocyte Maturation: Inhibitory Effects of Follicular Fluid, Fetuin, and Î±2HS-Glycoprotein1. Biology of Reproduction, 1993, 49, 561-567.	2.7	38

#	Article	IF	Citations
19	Chromosomal gain promotes formation of a steep RanGTP gradient that drives mitosis in aneuploid cells. Journal of Cell Biology, 2013, 200, 151-161.	5.2	35
20	Ran <scp>GTP</scp> and importin Î² regulate meiosis I spindle assembly and function in mouse oocytes. EMBO Journal, 2020, 39, e101689.	7.8	31
21	Modifications of the Mouse Zona Pellucida during Oocyte Maturation and Egg Activation: Effects of Newborn Calf Serum and Fetuin1. Biology of Reproduction, 1991, 45, 783-787.	2.7	29
22	Symmetry breaking in hydrodynamic forces drives meiotic spindle rotation in mammalian oocytes. Science Advances, 2020, 6, eaaz5004.	10.3	29
23	Microtubule assembly by the Apc protein is regulated by importin-Î²â€”RanGTP. Journal of Cell Science, 2010, 123, 736-746.	2.0	27
24	The design of FÃ¶rster (fluorescence) resonance energy transfer (FRET)-based molecular sensors for Ran GTPase. Methods, 2010, 51, 220-232.	3.8	27
25	Rapid, nonradioactive, and quantitative method to analyze zona pellucida modifications in single mouse eggs. Molecular Reproduction and Development, 1994, 38, 91-93.	2.0	23
26	Fertilisation competence of bovine normally matured or aged oocytes derived from different antral follicles: morphology, protein synthesis, H1 and MBP kinase activity. Zygote, 1997, 5, 235-246.	1.1	21
27	Spatial Distribution and Mobility of the Ran GTPase in Live Interphase Cells. Biophysical Journal, 2009, 97, 2164-2178.	0.5	20
28	The Role of RanGTP Gradient in Vertebrate Oocyte Maturation. Results and Problems in Cell Differentiation, 2011, 53, 235-267.	0.7	18
29	Emerging Therapies and Novel Targets for TDP-43 Proteinopathy in ALS/FTD. Neurotherapeutics, 2022, 19, 1061-1084.	4.4	17
30	LOX is a novel mitotic spindle-associated protein essential for mitosis. Oncotarget, 2016, 7, 29023-29035.	1.8	7
31	Chapter 21 Quantitative Fluorescence Lifetime Imaging in Cells as a Tool to Design Computational Models of Ranâ€Regulated Reaction Networks. Methods in Cell Biology, 2008, 89, 541-568.	1.1	4
32	Nuclear Transport Assays in Permeabilized Mouse Cortical Neurons. Journal of Visualized Experiments, 2021, , .	0.3	3