Karl Swann

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4480999/publications.pdf

Version: 2024-02-01

100 papers	6,577 citations	50276 46 h-index	66911 78 g-index
100 all docs	100 docs citations	100 times ranked	2962 citing authors

#	Article	IF	Citations
1	PLCÎ¶: a sperm-specific trigger of Ca2+ oscillations in eggs and embryo development. Development (Cambridge), 2002, 129, 3533-3544.	2.5	860
2	Calcium oscillations in mammalian eggs triggered by a soluble sperm protein. Nature, 1996, 379, 364-368.	27.8	385
3	Dynamics of the Calcium Signal That Triggers Mammalian Egg Activation. International Review of Cytology, 1994, 152, 183-222.	6.2	263
4	PLC zeta: a sperm-specific trigger of Ca(2+) oscillations in eggs and embryo development. Development (Cambridge), 2002, 129, 3533-44.	2.5	250
5	Sperm-triggered [Ca2+] oscillations and Ca2+homeostasis in the mouse egg have an absolute requirement for mitochondrial ATP production. Development (Cambridge), 2004, 131, 3057-3067.	2.5	209
6	Redistribution of mitochondria leads to bursts of ATP production during spontaneous mouse oocyte maturation. Journal of Cellular Physiology, 2010, 224, 672-680.	4.1	195
7	Stimulation of the Na/H exchanger of sea urchin eggs by phorbol ester. Nature, 1985, 314, 274-277.	27.8	162
8	Fertilization and early embryology: A cytosolic sperm factor triggers calcium oscillations and membrane hyperpolarizations in human oocytes. Human Reproduction, 1994, 9, 2356-2361.	0.9	156
9	Role of Phospholipase C-Î¶ Domains in Ca2+-dependent Phosphatidylinositol 4,5-Bisphosphate Hydrolysis and Cytoplasmic Ca2+ Oscillations. Journal of Biological Chemistry, 2005, 280, 31011-31018.	3.4	133
10	Cell cycle-dependent Ca2+ oscillations in mouse embryos are regulated by nuclear targeting of PLCÎ¶. Journal of Cell Science, 2004, 117, 2513-2521.	2.0	126
11	Follicle-Stimulating Hormone Induces a Gap Junction-Dependent Dynamic Change in [cAMP] and Protein Kinase A in Mammalian Oocytes. Developmental Biology, 2002, 246, 441-454.	2.0	125
12	Thimerosal causes calcium oscillations and sensitizes calcium-induced calcium release in unfertilized hamster eggs. FEBS Letters, 1991, 278, 175-178.	2.8	123
13	The dynamics of calcium oscillations that activate mammalian eggs. International Journal of Developmental Biology, 2008, 52, 585-594.	0.6	121
14	Inositol 1,4,5-Trisphosphate Receptors Are Downregulated in Mouse Oocytes in Response to Sperm or Adenophostin A but Not to Increases in Intracellular Ca2+ or Egg Activation. Developmental Biology, 2000, 223, 251-265.	2.0	120
15	A mammalian sperm cytosolic phospholipase C activity generates inositol trisphosphate and causes Ca2+release in sea urchin egg homogenates. FEBS Letters, 1998, 437, 297-300.	2.8	114
16	A novel signalling mechanism for generating ca2+ oscillations at fertilization in mammals. BioEssays, 1997, 19, 371-378.	2.5	111
17	Mammalian Sperm Contain a Ca2+-Sensitive Phospholipase C Activity That Can Generate InsP3 from PIP2 Associated with Intracellular Organelles. Developmental Biology, 2000, 228, 125-135.	2.0	108
18	Rhythmic actomyosin-driven contractions induced by sperm entry predict mammalian embryo viability. Nature Communications, 2011, 2, 417.	12.8	107

#	Article	IF	Citations
19	Mitochondria and lipid metabolism in mammalian oocytes and early embryos. International Journal of Developmental Biology, 2019, 63, 93-103.	0.6	102
20	Phospholipase CÎ¶ rescues failed oocyte activation in a prototype of male factor infertility. Fertility and Sterility, 2013, 99, 76-85.	1.0	91
21	Binding of Phosphoinositide-specific Phospholipase C-Î¶ (PLC-Î¶) to Phospholipid Membranes. Journal of Biological Chemistry, 2007, 282, 16644-16653.	3.4	83
22	PLC? and the initiation of Ca2+ oscillations in fertilizing mammalian eggs. Cell Calcium, 2013, 53, 55-62.	2.4	83
23	Different Ca2+-releasing abilities of sperm extracts compared with tissue extracts and phospholipase C isoforms in sea urchin egg homogenate and mouse eggs. Biochemical Journal, 2000, 346, 743-749.	3.7	81
24	Real Time Fluorescence Imaging of PlcÎ³ Translocation and Its Interaction with the Epidermal Growth Factor Receptor. Journal of Cell Biology, 2001, 153, 599-612.	5.2	78
25	Starting a new life: Sperm PLCâ€zeta mobilizes the Ca²⁺ signal that induces egg activation and embryo development. BioEssays, 2012, 34, 126-134.	2.5	78
26	Mechanism of Ca2+ release at fertilization in mammals. , 1999, 285, 267-275.		77
27	Tyrosine Residues in Phospholipase CÎ³2 Essential for the Enzyme Function in B-cell Signaling. Journal of Biological Chemistry, 2001, 276, 47982-47992.	3.4	77
28	The effects of a Ca2+ chelator and heavy-metal-ion chelators upon Ca2+ oscillations and activation at fertilization in mouse eggs suggest a role for repetitive Ca2+ increases. Biochemical Journal, 1998, 335, 335-342.	3.7	75
29	Sperm PLCÎ¶: From structure to Ca²⁺ oscillations, egg activation and therapeutic potential. FEBS Letters, 2013, 587, 3609-3616.	2.8	74
30	Ca2+ oscillations stimulate an ATP increase during fertilization of mouse eggs. Developmental Biology, 2006, 298, 225-233.	2.0	69
31	PLCÎ¶ causes Ca²⁺oscillations in mouse eggs by targeting intracellular and not plasma membrane PI(4,5)P₂. Molecular Biology of the Cell, 2012, 23, 371-380.	2.1	69
32	Sperm-induced Ca2+ release during egg activation in mammals. Biochemical and Biophysical Research Communications, 2014, 450, 1204-1211.	2.1	66
33	Egg Activation at Fertilization by a Soluble Sperm Protein. Physiological Reviews, 2016, 96, 127-149.	28.8	66
34	PLCÎ¶, a sperm-specific PLC and its potential role in fertilization. Biochemical Society Symposia, 2007, 74, 23-36.	2.7	63
35	Phospholipase CÎ¶ binding to PtdIns(4,5)P2 requires the XY-linker region. Journal of Cell Science, 2011, 124, 2582-2590.	2.0	63
36	Quantitative imaging of lipids in live mouse oocytes and early embryos using CARS microscopy. Development (Cambridge), 2016, 143, 2238-47.	2.5	61

#	Article	IF	Citations
37	The dynamics of plasma membrane PtdIns(4,5)P2 at fertilization of mouse eggs. Journal of Cell Science, 2002, 115, 2139-2149.	2.0	60
38	Novel regulation of PLCÎ¶ activity via its XY-linker. Biochemical Journal, 2011, 438, 427-432.	3.7	59
39	Sperm-specific post-acrosomal WW-domain binding protein (PAWP) does not cause Ca2+ release in mouse oocytes. Molecular Human Reproduction, 2014, 20, 938-947.	2.8	57
40	Rescue of failed oocyte activation after ICSI in a mouse model of male factor infertility by recombinant phospholipase CÎ¶. Molecular Human Reproduction, 2015, 21, 783-791.	2.8	57
41	The soluble sperm factor that causes Ca2+ release from sea-urchin (Lytechinus pictus) egg homogenates also triggers Ca2+ oscillations after injection into mouse eggs. Biochemical Journal, 1999, 341, 1-4.	3.7	55
42	Phospholipase C-Î¶-induced Ca2+ oscillations cause coincident cytoplasmic movements in human oocytes that failed to fertilize after intracytoplasmic sperm injection. Fertility and Sterility, 2012, 97, 742-747.	1.0	55
43	Male infertility-linked point mutation disrupts the Ca2+ oscillation-inducing and PIP2 hydrolysis activity of sperm PLCÎ¶. Biochemical Journal, 2011, 434, 211-217.	3.7	53
44	Regulation of cytosolic and mitochondrial ATP levels in mouse eggs and zygotes. Developmental Biology, 2008, 316, 431-440.	2.0	52
45	The soluble sperm oscillogen hypothesis. Zygote, 1993, 1, 273-276.	1.1	50
46	The dynamics of plasma membrane PtdIns(4,5)P(2) at fertilization of mouse eggs. Journal of Cell Science, 2002, 115, 2139-49.	2.0	50
47	The ability to generate normal Ca2+ transients in response to spermatozoa develops during the final stages of oocyte growth and maturation. Human Reproduction, 2000, 15, 1389-1395.	0.9	48
48	Molecular triggers of egg activation at fertilization in mammals. Reproduction, 2016, 152, R41-R50.	2.6	46
49	Functional disparity between human PAWP and PLCÎ¶ in the generation of Ca²⁺oscillations for oocyte activation. Molecular Human Reproduction, 2015, 21, 702-710.	2.8	42
50	Regulation of diacylglycerol production and protein kinase C stimulation during spermâ€•and PLCÎ¶â€•mediated mouse egg activation. Biology of the Cell, 2008, 100, 633-643.	2.0	36
51	An endogenous green fluorescent proteinâ€“photoprotein pair in Clytia hemisphaerica eggs shows co-targeting to mitochondria and efficient bioluminescence energy transfer. Open Biology, 2014, 4, 130206.	3.6	36
52	Essential Role of the EF-hand Domain in Targeting Sperm Phospholipase CÎ¶ to Membrane Phosphatidylinositol 4,5-Bisphosphate (PIP2). Journal of Biological Chemistry, 2015, 290, 29519-29530.	3.4	35
53	PLCÎ¶, a sperm-specific PLC and its potential role in fertilization. Biochemical Society Symposia, 2007, 74, 23.	2.7	35
54	Chimeras of sperm PLCÂ reveal disparate protein domain functions in the generation of intracellular Ca2+ oscillations in mammalian eggs at fertilization. Molecular Human Reproduction, 2013, 19, 852-864.	2.8	34

#	Article	IF	Citations
55	A Cytosolic Sperm Protein Factor Mobilizes Ca2+ from Intracellular Stores by Activating Multiple Ca2+ Release Mechanisms Independently of Low Molecular Weight Messengers. Journal of Biological Chemistry, 1997, 272, 28901-28905.	3.4	33
56	Sperm-induced currents at fertilization in sea urchin eggs injected with EGTA and neomycin. Developmental Biology, 1992, 151, 552-563.	2.0	32
57	Human PLCÂ exhibits superior fertilization potency over mouse PLCÂ in triggering the Ca2+ oscillations required for mammalian oocyte activation. Molecular Human Reproduction, 2014, 20, 489-498.	2.8	31
58	The sperm phospholipase C-Î¶ and Ca2+ signalling at fertilization in mammals. Biochemical Society Transactions, 2016, 44, 267-272.	3.4	31
59	PLCÎ¶ or PAWP: revisiting the putative mammalian sperm factor that triggers egg activation and embryogenesis. Molecular Human Reproduction, 2015, 21, 383-388.	2.8	30
60	Divergent effect of mammalian PLCÎ¶ in generating Ca2+ oscillations in somatic cells compared with eggs. Biochemical Journal, 2011, 438, 545-553.	3.7	28
61	Male infertility-linked point mutation reveals a vital binding role for the C2 domain of sperm PLCÎ¶. Biochemical Journal, 2017, 474, 1003-1016.	3.7	28
62	A cytosolic sperm factor triggers calcium oscillations in rat hepatocytes. Biochemical Journal, 1996, 313, 369-372.	3.7	27
63	The extracellular ATP receptor, cP2Y1, inhibits cartilage formation in micromass cultures of chick limb mesenchyme. Developmental Dynamics, 2001, 222, 494-505.	1.8	27
64	Different Ca2+-releasing abilities of sperm extracts compared with tissue extracts and phospholipase C isoforms in sea urchin egg homogenate and mouse eggs. Biochemical Journal, 2000, 346, 743.	3.7	26
65	Antigen unmasking enhances visualization efficacy of the oocyte activation factor, phospholipase C zeta, in mammalian sperm. Molecular Human Reproduction, 2017, 23, 54-67.	2.8	26
66	Is PAWP the "real" sperm factor?. Asian Journal of Andrology, 2015, 17, 444.	1.6	24
67	The role of Ca2+ in oocyte activation during In Vitro fertilization: Insights into potential therapies for rescuing failed fertilization. Biochimica Et Biophysica Acta - Molecular Cell Research, 2018, 1865, 1830-1837.	4.1	23
68	The soluble sperm factor that causes Ca2+ release from sea-urchin (Lytechinus pictus) egg homogenates also triggers Ca2+ oscillations after injection into mouse eggs. Biochemical Journal, 1999, 341, 1.	3.7	22
69	PLCÎ¶ Induced Ca2+ Oscillations in Mouse Eggs Involve a Positive Feedback Cycle of Ca2+ Induced InsP3 Formation From Cytoplasmic PIP2. Frontiers in Cell and Developmental Biology, 2018, 6, 36.	3.7	22
70	The soluble mammalian sperm factor protein that triggers Ca2+ oscillations in eggs: Evidence for expression of mRNA(s) coding for sperm factor protein(s) in spermatogenic cells. Biology of the Cell, 2000, 92, 267-275.	2.0	21
71	Injections of Porcine Sperm Extracts Trigger Fertilization-like Calcium Oscillations in Oocytes of a Marine Worm. Experimental Cell Research, 2000, 257, 341-347.	2.6	19
72	The dynamics of PKCâ€‰induced phosphorylation triggered by Ca²⁺ oscillations in mouse eggs. Journal of Cellular Physiology, 2013, 228, 110-119.	4.1	18

#	Article	IF	Citations
73	Fertilization differently affects the levels of cyclin B1 and M-phase promoting factor activity in maturing and metaphase II mouse oocytes. Reproduction, 2008, 136, 741-752.	2.6	17
74	Use of Luciferase Chimaera to Monitor PLCÎ¶ Expression in Mouse Eggs. Methods in Molecular Biology, 2009, 518, 17-29.	0.9	17
75	Calcium signalling at fertilization. Journal of the Marine Biological Association of the United Kingdom, 1994, 74, 3-16.	0.8	16
76	Cloning of a novel phospholipase C-Î´ isoform from pacific purple sea urchin (Strongylocentrotus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6 Biophysical Research Communications, 2004, 313, 894-901.	2.1	16
77	Ca2+ dynamics in oocytes from naturally-aged mice. Scientific Reports, 2016, 6, 19357.	3.3	16
78	Calcium oscillations in human oocytes. Molecular Human Reproduction, 1996, 2, 388-390.	2.8	15
79	Measuring Ca2+ Oscillations in Mammalian Eggs. Methods in Molecular Biology, 2013, 957, 231-248.	0.9	15
80	Electrical-assisted microinjection for analysis of fertilization and cell division in mammalian oocytes and early embryos. Methods in Cell Biology, 2018, 144, 431-440.	1.1	14
81	The dynamics of MAPK inactivation at fertilization in mouse eggs. Journal of Cell Science, 2014, 127, 2749-60.	2.0	13
82	Dynamic label-free imaging of lipid droplets and their link to fatty acid and pyruvate oxidation in mouse eggs. Journal of Cell Science, 2019, 132, .	2.0	12
83	The structure and function relationship of sperm PLC-zeta. Reproduction, 2022, , .	2.6	11
84	Calcium oscillations, sperm factors and egg activation at fertilisation. Journal of Molecular Medicine, 1998, 76, 548-554.	3.9	10
85	Phospholipid binding properties and functional characterization of a sea urchin phospholipase CÎ´ in urchin and mouse eggs. Biochemical and Biophysical Research Communications, 2007, 357, 964-970.	2.1	9
86	The soluble sperm factor that activates the egg: PLCzeta and beyond. Reproduction, 2020, 160, V9-V11.	2.6	8
87	Cell Behaviour as a Dynamic Attractor in the Intracellular Signalling System. Journal of Theoretical Biology, 1999, 196, 269-288.	1.7	7
88	The role of ATP in the differential ability of Sr2+ to trigger Ca2+ oscillations in mouse and human eggs. Molecular Human Reproduction, 2021, 27, .	2.8	7
89	SPERM FACTORS AND EGG ACTIVATION: PLCzeta as the sperm factor that activates eggs: 20 years on. Reproduction, 2022, 164, E1-E4.	2.6	4
90	Ca2+oscillations and sperm factors at fertilization in mammals. Human Fertility, 1999, 2, 61-66.	1.7	3

#	Article	IF	Citations
91	Composition of sea urchin egg homogenate determines its potency to inositol trisphosphate and cyclic ADPRibose-induced Ca2+ release. Biochemical and Biophysical Research Communications, 2007, 360, 815-820.	2.1	3
92	A primary effect of palmitic acid on mouse oocytes is the disruption of the structure of the endoplasmic reticulum. Reproduction, 2022, 163, 45-56.	2.6	3
93	A DYNAMICAL MODEL OF THE DISTRIBUTED INTERACTION OF INTRACELLULAR SIGNALS. International Journal of Neural Systems, 1996, 07, 333-341.	5.2	2
94	Membrane Events of Egg Activation. , 2002, , 319-346.		2
95	Vitrifying multiple embryos in different arrangements does not alter the cooling rate. Cryobiology, 2021, 103, 22-31.	0.7	2
96	Fundamental Role for Sperm Phospholipase CÎ¶ in Mammalian Fertilization. , 0, , 177-192.		1
97	Imaging lipids in living mammalian oocytes and early embryos by coherent Raman scattering microscopy. , 2019, , .		1
98	Dynamic shapes of the zygote and two-cell mouse and human. Biology Open, 2021, 10, .	1.2	1
99	The Fertilization Calcium Signal and How it is Triggered. Advances in Developmental Biochemistry, 1993, 2, 201-221.	0.9	0
100	Egg activation: initiation and decoding of Ca2+ signaling. , 0, , 177-186.		0