

# Istvan Mody

## List of Publications by Year in descending order

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125  
papers

18,292  
citations

14644

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17090

122  
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125  
docs citations

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times ranked

15675  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mossy Cells in the Dorsal and Ventral Dentate Gyrus Differ in Their Patterns of Axonal Projections. <i>Journal of Neuroscience</i> , 2021, 41, 991-1004.	1.7	32
2	Identification of neural oscillations and epileptiform changes in human brain organoids. <i>Nature Neuroscience</i> , 2021, 24, 1488-1500.	7.1	112
3	Defining the nature of human pluripotent stem cell-derived interneurons via single-cell analysis. <i>Stem Cell Reports</i> , 2021, 16, 2548-2564.	2.3	5
4	Amyloid $\beta$ induces interneuron-specific changes in the hippocampus of APPNL-F mice. <i>PLoS ONE</i> , 2020, 15, e0233700.	1.1	17
5	GABAAR Modulator for Postpartum Depression. <i>Cell</i> , 2019, 176, 1.	13.5	91
6	Preferential enhancement of GluN2B-containing native NMDA receptors by the endogenous modulator 24S-hydroxycholesterol in hippocampal neurons. <i>Neuropharmacology</i> , 2019, 148, 11-20.	2.0	28
7	Novel Quantitative Analyses of Spontaneous Synaptic Events in Cortical Pyramidal Cells Reveal Subtle Parvalbumin-Expressing Interneuron Dysfunction in a Knock-In Mouse Model of Alzheimer's Disease. <i>ENeuro</i> , 2018, 5, ENEURO.0059-18.2018.	0.9	18
8	Astrocyte Intermediaries of Septal Cholinergic Modulation in the Hippocampus. <i>Neuron</i> , 2016, 90, 853-865.	3.8	100
9	Diminished KCC2 confounds synapse specificity of LTP during senescence. <i>Nature Neuroscience</i> , 2016, 19, 1197-1200.	7.1	47
10	Evolution of temporal and spectral dynamics of pathologic high-frequency oscillations (pHFOs) during epileptogenesis. <i>Epilepsia</i> , 2015, 56, 1879-1889.	2.6	21
11	N17 Modifies Mutant Huntingtin Nuclear Pathogenesis and Severity of Disease in HD BAC Transgenic Mice. <i>Neuron</i> , 2015, 85, 726-741.	3.8	66
12	WONOEP appraisal: Molecular and cellular imaging in epilepsy. <i>Epilepsia</i> , 2015, 56, 505-513.	2.6	6
13	GABAergic Signaling in Health and Disease. <i>Neuropharmacology</i> , 2015, 88, 1.	2.0	2
14	In vitro gamma oscillations following partial and complete ablation of $\gamma$ subunit-containing GABA <sub>A</sub> receptors from parvalbumin interneurons. <i>Neuropharmacology</i> , 2015, 88, 91-98.	2.0	43
15	5-HT <sub>4</sub> -Receptors Modulate Induction of Long-Term Depression but Not Potentiation at Hippocampal Output Synapses in Acute Rat Brain Slices. <i>PLoS ONE</i> , 2014, 9, e88085.	1.1	12
16	Ovarian cycle-linked plasticity of $\alpha$ -GABA <sub>A</sub> receptor subunits in hippocampal interneurons affects $\alpha$ <sup>3</sup> oscillations in vivo. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 222.	1.8	34
17	Astrocyte Kir4.1 ion channel deficits contribute to neuronal dysfunction in Huntington's disease model mice. <i>Nature Neuroscience</i> , 2014, 17, 694-703.	7.1	486
18	Interneuronal GABA <sub>A</sub> receptors inside and outside of synapses. <i>Current Opinion in Neurobiology</i> , 2014, 26, 57-63.	2.0	41

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19	Rosiglitazone prevents the memory deficits induced by amyloid-beta oligomers via inhibition of inflammatory responses. <i>Neuroscience Letters</i> , 2014, 578, 7-11.	1.0	30
20	Novel test of motor and other dysfunctions in mouse neurological disease models. <i>Journal of Neuroscience Methods</i> , 2014, 221, 151-158.	1.3	6
21	Intracellular Bicarbonate Regulates Action Potential Generation via KCNQ Channel Modulation. <i>Journal of Neuroscience</i> , 2014, 34, 4409-4417.	1.7	10
22	Connectomics and epilepsy. <i>Current Opinion in Neurology</i> , 2013, 26, 186-194.	1.8	227
23	Altered gamma oscillations during pregnancy through loss of $\delta$ subunit-containing GABA <sub>A</sub> receptors on parvalbumin interneurons. <i>Frontiers in Neural Circuits</i> , 2013, 7, 144.	1.4	41
24	Finding a better drug for epilepsy: Antiepileptogenesis targets. <i>Epilepsia</i> , 2012, 53, 1868-1876.	2.6	82
25	Extrasynaptic GABA <sub>A</sub> Receptors: Their Function in the CNS and Implications for Disease. <i>Neuron</i> , 2012, 73, 23-34.	3.8	568
26	Inhibitory Interneuron Deficit Links Altered Network Activity and Cognitive Dysfunction in Alzheimer Model. <i>Cell</i> , 2012, 149, 708-721.	13.5	934
27	Glutamatergic input from specific sources influences the nucleus accumbens-ventral pallidum information flow. <i>Brain Structure and Function</i> , 2012, 217, 37-48.	1.2	38
28	The splicing regulator Rbfox1 (A2BP1) controls neuronal excitation in the mammalian brain. <i>Nature Genetics</i> , 2011, 43, 706-711.	9.4	297
29	Calmodulin as a direct detector of Ca <sup>2+</sup> signals. <i>Nature Neuroscience</i> , 2011, 14, 301-304.	7.1	165
30	Changes in Hippocampal Neuronal Activity During and After Unilateral Selective Hippocampal Ischemia <i>In Vivo</i> . <i>Journal of Neuroscience</i> , 2011, 31, 851-860.	1.7	66
31	Deletion of Astroglial Dicer Causes Non-Cell-Autonomous Neuronal Dysfunction and Degeneration. <i>Journal of Neuroscience</i> , 2011, 31, 8306-8319.	1.7	154
32	Introduction to the supplement. <i>Epilepsia</i> , 2010, 51, 1-1.	2.6	1
33	Plasticity of GABA <sub>A</sub> receptors relevant to neurosteroid actions. <i>Epilepsia</i> , 2010, 51, 49-49.	2.6	3
34	Reducing excessive GABA-mediated tonic inhibition promotes functional recovery after stroke. <i>Nature</i> , 2010, 468, 305-309.	13.7	722
35	Control of hippocampal gamma oscillation frequency by tonic inhibition and excitation of interneurons. <i>Nature Neuroscience</i> , 2010, 13, 205-212.	7.1	191
36	Selective Reduction of Cholecystokinin-Positive Basket Cell Innervation in a Model of Temporal Lobe Epilepsy. <i>Journal of Neuroscience</i> , 2010, 30, 8993-9006.	1.7	83

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37	Excitability Changes Related to GABA <sub>A</sub> Receptor Plasticity during Pregnancy. <i>Journal of Neuroscience</i> , 2009, 29, 9592-9601.	1.7	114
38	Hippocampal zinc infusion delays the development of afterdischarges and seizures in a kindling model of epilepsy. <i>Epilepsia</i> , 2009, 50, 870-879.	2.6	42
39	High-frequency oscillations: What is normal and what is not?. <i>Epilepsia</i> , 2009, 50, 598-604.	2.6	447
40	Establishing a physiological environment for visualized in vitro brain slice recordings by increasing oxygen supply and modifying aCSF content. <i>Journal of Neuroscience Methods</i> , 2009, 183, 107-113.	1.3	107
41	“One Swallow Does Not Make a Summer” or Does It?. <i>Epilepsy Currents</i> , 2008, 8, 73-75.	0.4	0
42	Extrasynaptic GABA <sub>A</sub> receptors in the crosshairs of hormones and ethanol. <i>Neurochemistry International</i> , 2008, 52, 60-64.	1.9	40
43	GABA <sub>A</sub> Receptor Plasticity during Pregnancy: Relevance to Postpartum Depression. <i>Neuron</i> , 2008, 59, 207-213.	3.8	345
44	Neurofibromin Regulation of ERK Signaling Modulates GABA Release and Learning. <i>Cell</i> , 2008, 135, 549-560.	13.5	384
45	Which GABA <sub>A</sub> Receptor Subunits Are Necessary for Tonic Inhibition in the Hippocampus?. <i>Journal of Neuroscience</i> , 2008, 28, 1421-1426.	1.7	325
46	Protein Kinase C $\delta$ Regulates Ethanol Intoxication and Enhancement of GABA-Stimulated Tonic Current. <i>Journal of Neuroscience</i> , 2008, 28, 11890-11899.	1.7	77
47	Silencing-Induced Metaplasticity in Hippocampal Cultured Neurons. <i>Journal of Neurophysiology</i> , 2008, 100, 690-697.	0.9	20
48	The multifaceted role of inhibition in epilepsy: seizure-genesis through excessive GABAergic inhibition in autosomal dominant nocturnal frontal lobe epilepsy. <i>Current Opinion in Neurology</i> , 2008, 21, 155-160.	1.8	58
49	Altered Localization of GABA <sub>A</sub> Receptor Subunits on Dentate Granule Cell Dendrites Influences Tonic and Phasic Inhibition in a Mouse Model of Epilepsy. <i>Journal of Neuroscience</i> , 2007, 27, 7520-7531.	1.7	196
50	Resolving the Fast Kinetics of Cooperative Binding: Ca <sup>2+</sup> Buffering by Calretinin. <i>PLoS Biology</i> , 2007, 5, e311.	2.6	88
51	Activation of GABA <sub>A</sub> Receptors: Views from Outside the Synaptic Cleft. <i>Neuron</i> , 2007, 56, 763-770.	3.8	295
52	Neurosteroid Synthesis-Mediated Regulation of GABA <sub>A</sub> Receptors: Relevance to the Ovarian Cycle and Stress. <i>Journal of Neuroscience</i> , 2007, 27, 2155-2162.	1.7	210
53	Spike Timing of Lacunosom-Moleculare Targeting Interneurons and CA3 Pyramidal Cells During High-Frequency Network Oscillations In Vitro. <i>Journal of Neurophysiology</i> , 2007, 98, 96-104.	0.9	29
54	A new meaning for “Gin & Tonic” tonic inhibition as the target for ethanol action in the brain. <i>Alcohol</i> , 2007, 41, 145-153.	0.8	59

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55	The main source of ambient GABA responsible for tonic inhibition in the mouse hippocampus. <i>Journal of Physiology</i> , 2007, 582, 1163-1178.	1.3	231
56	A new naturally occurring GABAA receptor subunit partnership with high sensitivity to ethanol. <i>Nature Neuroscience</i> , 2007, 10, 40-48.	7.1	232
57	Bi-Fi: An Embedded Sensor/System Architecture for Remote Biological Monitoring. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2007, 11, 611-618.	3.6	40
58	Hippocampal Network Hyperactivity After Selective Reduction of Tonic Inhibition in GABAA Receptor $\alpha 5$ Subunit-Deficient Mice. <i>Journal of Neurophysiology</i> , 2006, 95, 2796-2807.	0.9	190
59	Differences between the scaling of miniature IPSCs and EPSCs recorded in the dendrites of CA1 mouse pyramidal neurons. <i>Journal of Physiology</i> , 2006, 576, 191-196.	1.3	34
60	A TinyOS-Enabled MICA2-Based Wireless Neural Interface. <i>IEEE Transactions on Biomedical Engineering</i> , 2006, 53, 1416-1424.	2.5	49
61	Seizures and enhanced cortical GABAergic inhibition in two mouse models of human autosomal dominant nocturnal frontal lobe epilepsy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 19152-19157.	3.3	195
62	Ovarian cycle-linked changes in GABAA receptors mediating tonic inhibition alter seizure susceptibility and anxiety. <i>Nature Neuroscience</i> , 2005, 8, 797-804.	7.1	563
63	A hybrid approach to measuring electrical activity in genetically specified neurons. <i>Nature Neuroscience</i> , 2005, 8, 1619-1626.	7.1	169
64	Aspects of the homeostatic plasticity of GABA receptor-mediated inhibition. <i>Journal of Physiology</i> , 2005, 562, 37-46.	1.3	123
65	GABA Transporter Deficiency Causes Tremor, Ataxia, Nervousness, and Increased GABA-Induced Tonic Conductance in Cerebellum. <i>Journal of Neuroscience</i> , 2005, 25, 3234-3245.	1.7	212
66	Pathological Cell-Cell Interactions Elicited by a Neuropathogenic Form of Mutant Huntingtin Contribute to Cortical Pathogenesis in HD Mice. <i>Neuron</i> , 2005, 46, 433-444.	3.8	222
67	Kinetic Properties of DM-Nitrophen Binding to Calcium and Magnesium. <i>Biophysical Journal</i> , 2005, 88, 4421-4433.	0.2	31
68	Protective Effect of Ifenprodil Against Spreading Depression in the Mouse Entorhinal Cortex. <i>Journal of Neurophysiology</i> , 2004, 92, 2610-2614.	0.9	30
69	Low Ethanol Concentrations Selectively Augment the Tonic Inhibition Mediated by $\alpha 5$ Subunit-Containing GABAA Receptors in Hippocampal Neurons. <i>Journal of Neuroscience</i> , 2004, 24, 8379-8382.	1.7	236
70	Altered Expression of the $\alpha 5$ Subunit of the GABAA Receptor in a Mouse Model of Temporal Lobe Epilepsy. <i>Journal of Neuroscience</i> , 2004, 24, 8629-8639.	1.7	286
71	Another "Tonic" in the Realm of Epilepsy. <i>Epilepsy Currents</i> , 2004, 4, 248-249.	0.4	3
72	High-frequency Oscillations after Status Epilepticus: Epileptogenesis and Seizure Genesis. <i>Epilepsia</i> , 2004, 45, 1017-1023.	2.6	394

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73	Diversity of inhibitory neurotransmission through GABAA receptors. Trends in Neurosciences, 2004, 27, 569-575.	4.2	490
74	Calcium and Autosomal Dominant Nocturnal Frontal Lobe Epilepsy (ADNFLE). Epilepsy Currents, 2003, 3, 221-222.	0.4	0
75	A Tale of Timing and Transport. Neuron, 2003, 39, 729-730.	3.8	5
76	Î³-Hydroxybutyrate Reduces Mitogen-activated Protein Kinase Phosphorylation via GABAB Receptor Activation in Mouse Frontal Cortex and Hippocampus. Journal of Biological Chemistry, 2003, 278, 42006-42011.	1.6	33
77	Neuroactive steroids reduce neuronal excitability by selectively enhancing tonic inhibition mediated by Å subunit-containing GABAA receptors. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 14439-14444.	3.3	714
78	Activation of NMDA Receptors in Rat Dentate Gyrus Granule Cells by Spontaneous and Evoked Transmitter Release. Journal of Neurophysiology, 2003, 90, 786-797.	0.9	84
79	GABA Transporter-1 (GAT1)-Deficient Mice: Differential Tonic Activation of GABAA Versus GABAB Receptors in the Hippocampus. Journal of Neurophysiology, 2003, 90, 2690-2701.	0.9	218
80	Perisynaptic Localization of Î Subunit-Containing GABA<sub>A</sub> Receptors and Their Activation by GABA Spillover in the Mouse Dentate Gyrus. Journal of Neuroscience, 2003, 23, 10650-10661.	1.7	364
81	Receptors with Different Affinities Mediate Phasic and Tonic GABA<sub>A</sub> Conductances in Hippocampal Neurons. Journal of Neuroscience, 2002, 22, RC223-RC223.	1.7	281
82	Local Generation of Fast Ripples in Epileptic Brain. Journal of Neuroscience, 2002, 22, 2012-2021.	1.7	400
83	Number, Density, and Surface/Cytoplasmic Distribution of GABA Transporters at Presynaptic Structures of Knock-In Mice Carrying GABA Transporter Subtype 1â€“Green Fluorescent Protein Fusions. Journal of Neuroscience, 2002, 22, 10251-10266.	1.7	133
84	Selective Modulation of Tonic and Phasic Inhibitions in Dentate Gyrus Granule Cells. Journal of Neurophysiology, 2002, 87, 2624-2628.	0.9	436
85	The GAD-given Right of Dentate Gyrus Granule Cells to Become GABAergic. Epilepsy Currents, 2002, 2, 143-145.	0.4	13
86	Kindling enhances kainate receptor-mediated depression of GABAergic inhibition in rat granule cells. European Journal of Neuroscience, 2002, 16, 861-867.	1.2	19
87	Synapse-Specific Contribution of the Variation of Transmitter Concentration to the Decay of Inhibitory Postsynaptic Currents. Biophysical Journal, 2001, 80, 1251-1261.	0.2	93
88	Disruption of GABA<sub>A</sub> Receptors on GABAergic Interneurons Leads to Increased Oscillatory Power in the Olfactory Bulb Network. Journal of Neurophysiology, 2001, 86, 2823-2833.	0.9	207
89	Kindling Induces Transient NMDA Receptorâ€“Mediated Facilitation of High-Frequency Input in the Rat Dentate Gyrus. Journal of Neurophysiology, 2001, 85, 2195-2202.	0.9	35
90	The process of epileptogenesis: a pathophysiological approach. Current Opinion in Neurology, 2001, 14, 187-192.	1.8	175

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91	Distinguishing between GABA(A) receptors responsible for tonic and phasic conductances. <i>Neurochemical Research</i> , 2001, 26, 907-913.	1.6	222
92	L-type Ca <sup>2+</sup> channel-mediated short-term plasticity of GABAergic synapses. <i>Nature Neuroscience</i> , 2001, 4, 975-976.	7.1	52
93	Localization of the A kinase anchoring protein AKAP79 in the human hippocampus. <i>European Journal of Neuroscience</i> , 2000, 12, 1155-1164.	1.2	32
94	Cell type- and synapse-specific variability in synaptic GABA <sub>A</sub> receptor occupancy. <i>European Journal of Neuroscience</i> , 2000, 12, 810-818.	1.2	130
95	Glutamate Receptor Activation in the Kindled Dentate Gyrus. <i>Epilepsia</i> , 2000, 41, S100-S103.	2.6	13
96	Surviving Granule Cells of the Sclerotic Human Hippocampus Have Reduced Ca <sup>2+</sup> Influx Because of a Loss of Calbindin-D <sub>28k</sub> in Temporal Lobe Epilepsy. <i>Journal of Neuroscience</i> , 2000, 20, 1831-1836.	1.7	137
97	Binding Kinetics of Calbindin-D <sub>28k</sub> Determined by Flash Photolysis of Caged Ca <sup>2+</sup> . <i>Biophysical Journal</i> , 2000, 79, 3009-3018.	0.2	176
98	Modulation of Synaptic GABA <sub>A</sub> Receptor Function by PKA and PKC in Adult Hippocampal Neurons. <i>Journal of Neuroscience</i> , 1999, 19, 674-683.	1.7	171
99	Casein kinase II regulates NMDA channel function in hippocampal neurons. <i>Nature Neuroscience</i> , 1999, 2, 125-132.	7.1	74
100	Glutamatergic synapses onto hippocampal interneurons: precision timing without lasting plasticity. <i>Trends in Neurosciences</i> , 1999, 22, 228-235.	4.2	100
101	Decreased sensitivity to Group III mGluR agonists in the lateral perforant path following kindling. <i>Neuropharmacology</i> , 1999, 38, 927-933.	2.0	31
102	Interneurons and the ghost of the sea. <i>Nature Neuroscience</i> , 1998, 1, 434-436.	7.1	15
103	Increased number of synaptic GABA <sub>A</sub> receptors underlies potentiation at hippocampal inhibitory synapses. <i>Nature</i> , 1998, 395, 172-177.	13.7	437
104	The dynamics of synchronized neurotransmitter release determined from compound spontaneous IPSCs in rat dentate granule neurons in vitro. <i>Journal of Physiology</i> , 1998, 510, 477-497.	1.3	45
105	Ion Channels in Epilepsy. <i>International Review of Neurobiology</i> , 1998, 42, 199-226.	0.9	62
106	Substance P Enhances NMDA Channel Function in Hippocampal Dentate Gyrus Granule Cells. <i>Journal of Neurophysiology</i> , 1998, 80, 113-119.	0.9	44
107	Endogenous GABA Activates Small-Conductance K <sup>+</sup> Channels Underlying Slow IPSCs in Rat Hippocampal Neurons. <i>Journal of Neurophysiology</i> , 1997, 77, 2202-2208.	0.9	23
108	Silent GABA <sub>A</sub> Synapses during Flurazepam Withdrawal Are Region-Specific in the Hippocampal Formation. <i>Journal of Neuroscience</i> , 1997, 17, 3467-3475.	1.7	46

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109	Synaptic Communication among Hippocampal Interneurons: Properties of Spontaneous IPSCs in Morphologically Identified Cells. <i>Journal of Neuroscience</i> , 1997, 17, 8427-8442.	1.7	119
110	Cell properties in the epileptic hippocampus. <i>Hippocampus</i> , 1994, 4, 275-280.	0.9	18
111	Regulation of NMDA channel function by endogenous Ca <sup>2+</sup> -dependent phosphatase. <i>Nature</i> , 1994, 369, 235-239.	13.7	472
112	The Molecular Basis of Kindling. <i>Brain Pathology</i> , 1993, 3, 395-403.	2.1	61
113	Activity-dependent changes in structure and function of hippocampal neurons. <i>Hippocampus</i> , 1993, 3, 99-111.	0.9	4
114	Noradrenergic modulation of excitability in acute and chronic model epilepsies. , 1992, 8, 321-334.		7
115	Halothane enhances tonic neuronal inhibition of elevating intracellular calcium. <i>Brain Research</i> , 1991, 538, 319-323.	1.1	148
116	Perpetual inhibitory activity in mammalian brain slices generated by spontaneous GABA release. <i>Brain Research</i> , 1991, 545, 142-150.	1.1	204
117	Integrity of perforant path fibers and the frequency of action potential independent excitatory and inhibitory synaptic events in dentate gyrus granule cells. <i>Synapse</i> , 1991, 9, 219-224.	0.6	23
118	Differential activation of glutamate receptors by spontaneously released transmitter in slices of neocortex. <i>Neuroscience Letters</i> , 1990, 114, 265-271.	1.0	75
119	Kindling-induced epilepsy alters calcium currents in granule cells of rat hippocampal slices. <i>Brain Research</i> , 1990, 531, 88-94.	1.1	76
120	Dantrolene-Na (Dantrium) blocks induction of long-term potentiation in hippocampal slices. <i>Neuroscience Letters</i> , 1989, 98, 172-178.	1.0	137
121	Whole-cell voltage-clamp recordings in granule cells acutely isolated from hippocampal slices of adult or aged rats. <i>Neuroscience Letters</i> , 1989, 96, 70-75.	1.0	42
122	Down-regulation of norepinephrine sensitivity after induction of long-term neuronal plasticity (kindling) in the rat dentate gyrus. <i>Brain Research</i> , 1989, 476, 367-372.	1.1	18
123	A method for isolating and patch-clamping single mammalian taste receptor cells. <i>Brain Research</i> , 1989, 503, 326-329.	1.1	67
124	Requirement of NMDA receptor/channels for intracellular high-energy phosphates and the extent of intraneuronal calcium buffering in cultured mouse hippocampal neurons. <i>Neuroscience Letters</i> , 1988, 93, 73-78.	1.0	54
125	NMDA receptors of dentate gyrus granule cells participate in synaptic transmission following kindling. <i>Nature</i> , 1987, 326, 701-704.	13.7	402