

Nature analysis of papers alleged to come from paper mills

<i>Journal</i>	Number of papers in which sleuths /journals have publicly alleged paper mills since Jan 2020	Retracted since Jan 2020	Retraction before Jan 2020, or retraction date unclear	Expression of concern since Jan 2020	Expression of concern before Jan 2020	Corrected since Jan 2020	Not marked*	Data up to 18 March 2020; *Journal may have investigated and decided not to retract or otherwise alter the paper. Or it might be in the process of investigating.
European Review for Medical and Pharmacological Sciences	355	142	1	1			211	
Journal of Cellular Biochemistry	137	23	5				109	
Artificial Cells Nanomedicine and Biotechnology	83	18		17			48	
Cellular Physiology and Biochemistry	82	13		2		2	65	
Biomedicine & Pharmacotherapy	80	8					72	
Journal of Cellular Physiology	74	4					70	
RSC Advances	68†	68						†Alleged by journal
Oncology Research Featuring Preclinical and Clinical Cancer Therapeutics	63	9	1				53	
Brazilian Journal of Medical and Biological Research	31	6					25	
Experimental and Molecular Pathology	29	2					27	
Life Sciences	28	7	1				20	
The Anatomical Record	21	7					14	
Bioscience Reports	17	3		10			4	
Cancer Biomarkers	17	4					13	
BioFactors	16						16	
International Journal of Clinical and Experimental Medicine	14						14	
Journal of B.U.ON	14						14	

American Journal of Cancer Research	12	7				5
International Journal of Immunopathology and Pharmacology	12			12		
Medical Science Monitor	12					12
International Immunopharmacology	11	1				10
OncoTarget	9					9
Tumor Biology	9					9
BMC Cancer	8					8
Journal of Cellular and Molecular Medicine	8	6				2
Naunyn-Schmiedeberg's Archives of Pharmacology	8	8				#7 alleged by sleuths, 1 by journal. (Journal has stated that 2 others to be retracted, but not said which ones).
Neoplasma	8					8
Phytotherapy Research	8	8				
Cancer Biotherapy & Radiopharmaceuticals	7					7
Biochemical and Biophysical Research Communications	6				1	5
Molecular and Cellular Biochemistry	6					6
Pharmacological Reports	6	6				
International journal of clinical and experimental pathology	5	1				4
Acta Pharmacologica Sinica	4					4
European Journal of Pharmacology	4	1				3
International Journal of Biological Macromolecules	4					4
Iranian Journal of Basic Medical Sciences	4					4
Journal of Physiology and Biochemistry	4			1		3
Oncology Letters	4	2				2
OncoTargets and Therapy	4	3				1

Biological Chemistry	3					3
Cell Biochemistry and Function	3	1				2
Cell Cycle	3					3
International Journal of Oncology	3					3
Journal of Experimental & Clinical Cancer	3	1				2
Molecular Immunology	3					3
Pathology - Research and Practice	3					3
Pharmaceutical Biology	3					3
Pharmazie	3					3
American journal of translational research	2					2
Bone Joint Research	2					2
Brain Research Bulletin	2					2
Cell Biology International	2					2
Cell Proliferation	2					2
Chemico-Biological Interactions	2					2
CNS Neuroscience & Therapeutics	2	1				1
Cytogenetic and Genome Research	2					2
DNA and Cell Biology	2	1				1
Experimental & Molecular Medicine	2					2
Experimental and Therapeutic Medicine	2					2
Human Cell	2	1				1
International Heart Journal	2					2
International Journal of Biochemistry and Cell Biology	2	1				1
IUBMB Life	2					2
Journal of Clinical Laboratory Analysis	2					2
Molecular Medicine	2					2
Molecules and Cells	2					2
Neuroscience Letters	2					2
Oncology Reports	2					2
Open Biology	2	2				
Pancreatology	2					2

Pathology & Oncology Research	2					2
Technology in Cancer Research & Treatment	2					2
Acta Ophthalmologica	1					1
Advances in Clinical and Experimental Medicine	1					1
American Journal of Physiology Cell Physiology	1					1
American journal of physiology. Gastrointestinal and liver physiology	1					1
Basic & Clinical Pharmacology & Toxicology	1					1
Biochemistry and Cell Biology	1					1
Calcified Tissue International	1					1
Cancer Chemotherapy and Pharmacology	1					1
Cancer gene therapy	1				1	
Cancer Letters	1					1
Cancer Management and Research	1			1		
Cancer Medicine	1					1
Cancer Science	1	1				
Cardiology Journal	1					1
Cellular Signalling	1					1
Chinese Medical Journal	1					1
Digestive diseases and sciences	1					1
European Journal of Medical Research	1					1
Experimental Cell Research	1					1
Food & Function	1†	1				talleged by journal
Gene	1	1				
Gene Therapy	1					1
General Physiology and Biophysics	1					1
Genetics and Molecular Research	1					1
Gynecologic and Obstetric Investigation	1					1

Immunopharmacology and Immunotoxicology	1			1			
Inflammation	1					1	
Journal of Biosciences	1					1	
Journal of Cancer	1					1	
Journal of Cardiovascular Pharmacology	1	1					
Journal of Drug Targeting	1					1	
Journal of molecular neuroscience : MN	1					1	
Journal of Thoracic Disease	1					1	
Kaohsiung Journal of Medical Sciences	1					1	
Kidney Blood Press Res	1					1	
MedChemComm (now RSC Medicinal Chemistry)	1†	1					talleged by journal
Medicine	1					1	
Molecular and Cellular Endocrinology	1					1	
Molecular Carcinogenesis	1					1	
Molecular Pain	1				1		
Molecular Therapy — Nucleic Acids	1					1	
Placenta	1					1	
RNA Biology	1					1	
Scientific Reports	1					1	
SSRN Electronic Journal	1					1	