

Jasmin A Tiro

List of Publications by Citations

Source: <https://exaly.com/author-pdf/1581002/jasmin-a-tiro-publications-by-citations.pdf>

Version: 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

128
papers

3,912
citations

33
h-index

59
g-index

133
ext. papers

4,691
ext. citations

4.8
avg, IF

5.48
L-index

#	Paper	IF	Citations
128	Early detection, curative treatment, and survival rates for hepatocellular carcinoma surveillance in patients with cirrhosis: a meta-analysis. <i>PLoS Medicine</i> , 2014 , 11, e1001624	11.6	426
127	Utilization of hepatocellular carcinoma surveillance among American patients: a systematic review. <i>Journal of General Internal Medicine</i> , 2012 , 27, 861-7	4	188
126	What do women in the U.S. know about human papillomavirus and cervical cancer?. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2007 , 16, 288-94	4	173
125	Reported drop in mammography : is this cause for concern?. <i>Cancer</i> , 2007 , 109, 2405-9	6.4	158
124	Detection of hepatocellular carcinoma at advanced stages among patients in the HALT-C trial: where did surveillance fail?. <i>American Journal of Gastroenterology</i> , 2013 , 108, 425-32	0.7	148
123	Comparative effectiveness of fecal immunochemical test outreach, colonoscopy outreach, and usual care for boosting colorectal cancer screening among the underserved: a randomized clinical trial. <i>JAMA Internal Medicine</i> , 2013 , 173, 1725-32	11.5	147
122	Failure rates in the hepatocellular carcinoma surveillance process. <i>Cancer Prevention Research</i> , 2012 , 5, 1124-30	3.2	128
121	An assessment of benefits and harms of hepatocellular carcinoma surveillance in patients with cirrhosis. <i>Hepatology</i> , 2017 , 65, 1196-1205	11.2	123
120	Racial, social, and clinical determinants of hepatocellular carcinoma surveillance. <i>American Journal of Medicine</i> , 2015 , 128, 90.e1-7	2.4	91
119	Patient-reported barriers are associated with lower hepatocellular carcinoma surveillance rates in patients with cirrhosis. <i>Hepatology</i> , 2017 , 65, 875-884	11.2	86
118	Outreach invitations for FIT and colonoscopy improve colorectal cancer screening rates: A randomized controlled trial in a safety-net health system. <i>Cancer</i> , 2016 , 122, 456-63	6.4	79
117	Factorial validity and invariance of a survey measuring psychosocial correlates of colorectal cancer screening among African Americans and Caucasians. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2005 , 14, 2855-61	4	78
116	Reliability and validity of a questionnaire to measure colorectal cancer screening behaviors: does mode of survey administration matter?. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2008 , 17, 758-67	4	71
115	Some methodologic lessons learned from cancer screening research. <i>Cancer</i> , 2004 , 101, 1131-45	6.4	70
114	Practice patterns and attitudes of primary care providers and barriers to surveillance of hepatocellular carcinoma in patients with cirrhosis. <i>Clinical Gastroenterology and Hepatology</i> , 2015 , 13, 791-8.e1	6.9	69
113	Effect of Colonoscopy Outreach vs Fecal Immunochemical Test Outreach on Colorectal Cancer Screening Completion: A Randomized Clinical Trial. <i>JAMA - Journal of the American Medical Association</i> , 2017 , 318, 806-815	27.4	65
112	Reasons for Lack of Diagnostic Colonoscopy After Positive Result on Fecal Immunochemical Test in a Safety-Net Health System. <i>American Journal of Medicine</i> , 2017 , 130, 93.e1-93.e7	2.4	65

111	Understanding impediments and enablers to physical activity among African American adults: a systematic review of qualitative studies. <i>Health Education Research</i> , 2011 , 26, 1010-24	1.8	65
110	Additive impact of childhood emotional, physical, and sexual abuse on suicide attempts among low-income African American women. <i>Suicide and Life-Threatening Behavior</i> , 2002 , 32, 131-8	3.9	62
109	Mailed Outreach Program Increases Ultrasound Screening of Patients With Cirrhosis for Hepatocellular Carcinoma. <i>Gastroenterology</i> , 2017 , 152, 608-615.e4	13.3	59
108	Unifying screening processes within the PROSPR consortium: a conceptual model for breast, cervical, and colorectal cancer screening. <i>Journal of the National Cancer Institute</i> , 2015 , 107, djv120	9.7	55
107	The colorectal cancer screening process in community settings: a conceptual model for the population-based research optimizing screening through personalized regimens consortium. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2014 , 23, 1147-58	4	54
106	Construct validity and invariance of four factors associated with colorectal cancer screening across gender, race, and prior screening. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2008 , 17, 2231-7	4	53
105	Residential racial segregation and mortality among black, white, and Hispanic urban breast cancer patients in Texas, 1995 to 2009. <i>Cancer</i> , 2015 , 121, 1845-55	6.4	52
104	Therapeutic delays lead to worse survival among patients with hepatocellular carcinoma. <i>Journal of the National Comprehensive Cancer Network: JNCCN</i> , 2013 , 11, 1101-8	7.3	45
103	Precision Health: The Role of the Social and Behavioral Sciences in Advancing the Vision. <i>Annals of Behavioral Medicine</i> , 2020 , 54, 805-826	4.5	42
102	Too much of a good thing? Physician practices and patient willingness for less frequent pap test screening intervals. <i>Medical Care</i> , 2010 , 48, 249-59	3.1	42
101	Use of human papillomavirus vaccines among young adult women in the United States: an analysis of the 2008 National Health Interview Survey. <i>Cancer</i> , 2011 , 117, 5560-8	6.4	41
100	Improving hepatocellular carcinoma screening: applying lessons from colorectal cancer screening. <i>Clinical Gastroenterology and Hepatology</i> , 2013 , 11, 472-7	6.9	40
99	Human papillomavirus vaccine use among adolescent girls and young adult women: an analysis of the 2007 California Health Interview Survey. <i>Journal of Women's Health</i> , 2012 , 21, 656-65	3	40
98	Interventions to promote repeat breast cancer screening with mammography: a systematic review and meta-analysis. <i>Journal of the National Cancer Institute</i> , 2010 , 102, 1023-39	9.7	40
97	Population-Based Precision Cancer Screening: A Symposium on Evidence, Epidemiology, and Next Steps. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2016 , 25, 1449-1455	4	35
96	Mailed Outreach Invitations Significantly Improve HCC Surveillance Rates in Patients With Cirrhosis: A Randomized Clinical Trial. <i>Hepatology</i> , 2019 , 69, 121-130	11.2	34
95	Promoting regular mammography screening II. Results from a randomized controlled trial in US women veterans. <i>Journal of the National Cancer Institute</i> , 2008 , 100, 347-58	9.7	32
94	Parent-Provider Communication of HPV Vaccine Hesitancy. <i>Pediatrics</i> , 2018 , 141,	7.4	32

93	Multilevel correlates for human papillomavirus vaccination of adolescent girls attending safety net clinics. <i>Vaccine</i> , 2012 , 30, 2368-75	4.1	31
92	Human papillomavirus and cervical cancer behavioral surveillance in the US. <i>Cancer</i> , 2008 , 113, 3013-30	6.4	28
91	Effects of socioeconomic status and health care access on low levels of human papillomavirus vaccination among Spanish-speaking Hispanics in California. <i>American Journal of Public Health</i> , 2013 , 103, 270-2	5.1	27
90	Knowledge and intention to participate in cervical cancer screening after the human papillomavirus vaccine. <i>Vaccine</i> , 2011 , 29, 4238-43	4.1	27
89	Hepatocellular Carcinoma Surveillance Among Patients With Cirrhosis in a Population-based Integrated Health Care Delivery System. <i>Journal of Clinical Gastroenterology</i> , 2017 , 51, 650-655	3	26
88	Effect of Mailed Human Papillomavirus Test Kits vs Usual Care Reminders on Cervical Cancer Screening Uptake, Precancer Detection, and Treatment: A Randomized Clinical Trial. <i>JAMA Network Open</i> , 2019 , 2, e1914729	10.4	25
87	Variation in Screening Abnormality Rates and Follow-Up of Breast, Cervical and Colorectal Cancer Screening within the PROSPR Consortium. <i>Journal of General Internal Medicine</i> , 2016 , 31, 372-9	4	23
86	Deconstructing Decisions to Initiate, Maintain, or Discontinue Adjuvant Endocrine Therapy in Breast Cancer Survivors: A Mixed-Methods Study. <i>Oncology Nursing Forum</i> , 2017 , 44, E101-E110	1.7	22
85	Evaluating associations between sources of information, knowledge of the human papillomavirus, and human papillomavirus vaccine uptake for adult women in California. <i>Vaccine</i> , 2012 , 30, 3003-8	4.1	22
84	Impediments and facilitators to physical activity and perceptions of sedentary behavior among urban community residents: the Fair Park Study. <i>Preventing Chronic Disease</i> , 2013 , 10, E177	3.7	22
83	Factorial validity and invariance of a survey measuring psychosocial correlates of colorectal cancer screening in Ontario, Canada—a replication study. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2008 , 17, 3279-83	4	22
82	Competitive testing of health behavior theories: how do benefits, barriers, subjective norm, and intention influence mammography behavior?. <i>Annals of Behavioral Medicine</i> , 2014 , 47, 120-9	4.5	21
81	Validation of scales measuring attitudes and norms related to mammography screening in women veterans. <i>Health Psychology</i> , 2005 , 24, 555-66	5	21
80	Promoting regular mammography screening I. A systematic assessment of validity in a randomized trial. <i>Journal of the National Cancer Institute</i> , 2008 , 100, 333-46	9.7	20
79	Reducing "I Don't Know" Responses and Missing Survey Data: Implications for Measurement. <i>Medical Decision Making</i> , 2018 , 38, 673-682	2.5	20
78	Understanding how mothers of adolescent girls obtain information about the human papillomavirus vaccine: associations between mothers' health beliefs, information seeking, and vaccination intentions in an ethnically diverse sample. <i>Journal of Health Psychology</i> , 2013 , 18, 926-38	3.1	19
77	Assessing race and ethnicity data quality across cancer registries and EMRs in two hospitals. <i>Journal of the American Medical Informatics Association: JAMIA</i> , 2016 , 23, 627-34	8.6	18
76	Human papillomavirus vaccine coverage among females aged 11 to 17 in Texas counties: an application of multilevel, small area estimation. <i>Women's Health Issues</i> , 2013 , 23, e131-41	2.6	18

75	Promoting HPV Vaccination in Safety-Net Clinics: A Randomized Trial. <i>Pediatrics</i> , 2015 , 136, 850-9	7.4	17
74	Characterizing safety-net providers' HPV vaccine recommendations to undecided parents: A pilot study. <i>Patient Education and Counseling</i> , 2016 , 99, 1452-60	3.1	17
73	Development costs of a computer-generated tailored intervention. <i>Evaluation and Program Planning</i> , 2004 , 27, 161-169	1.7	17
72	Patient-Reported Barriers Are Associated With Receipt of Hepatocellular Carcinoma Surveillance in a Multicenter Cohort of Patients With Cirrhosis. <i>Clinical Gastroenterology and Hepatology</i> , 2021 , 19, 987-995.e11 ¹⁷	6.9	17
71	Rationale and design of the HOME trial: A pragmatic randomized controlled trial of home-based human papillomavirus (HPV) self-sampling for increasing cervical cancer screening uptake and effectiveness in a U.S. healthcare system. <i>Contemporary Clinical Trials</i> , 2018 , 64, 77-87	2.3	17
70	Sex disparities in presentation and prognosis of 1110 patients with hepatocellular carcinoma. <i>Alimentary Pharmacology and Therapeutics</i> , 2020 , 52, 701-709	6.1	16
69	Does patient health and hysterectomy status influence cervical cancer screening in older women?. <i>Journal of General Internal Medicine</i> , 2008 , 23, 1822-8	4	16
68	Cost-effectiveness studies of HPV self-sampling: A systematic review. <i>Preventive Medicine</i> , 2020 , 132, 105953	4.3	16
67	Hispanic and Immigrant Paradoxes in U.S. Breast Cancer Mortality: Impact of Neighborhood Poverty and Hispanic Density. <i>International Journal of Environmental Research and Public Health</i> , 2016 , 13,	4.6	16
66	Evaluating Screening Participation, Follow-up, and Outcomes for Breast, Cervical, and Colorectal Cancer in the PROSPR Consortium. <i>Journal of the National Cancer Institute</i> , 2020 , 112, 238-246	9.7	16
65	Patterns and predictors of repeat fecal immunochemical and occult blood test screening in four large health care systems in the United States. <i>American Journal of Gastroenterology</i> , 2018 , 113, 746-754 ^{0.7}	10.7	15
64	Construct validity of a mammography processes of change scale and invariance by stage of change. <i>Journal of Health Psychology</i> , 2010 , 15, 64-74	3.1	14
63	Validity of Single-Item Screening for Limited Health Literacy in English and Spanish Speakers. <i>American Journal of Public Health</i> , 2016 , 106, 889-92	5.1	14
62	Use of Health Behavior Theory in Funded Grant Proposals: Cancer Screening Interventions as a Case Study. <i>Annals of Behavioral Medicine</i> , 2015 , 49, 809-18	4.5	12
61	Effectiveness of a community research registry to recruit minority and underserved adults for health research. <i>Clinical and Translational Science</i> , 2015 , 8, 82-4	4.9	12
60	Mediating factors in the relationship between income and mammography use in low-income insured women. <i>Journal of Women's Health</i> , 2008 , 17, 1371-8	3	12
59	Understanding Patients' Perspectives and Information Needs Following a Positive Home Human Papillomavirus Self-Sampling Kit Result. <i>Journal of Women's Health</i> , 2019 , 28, 384-392	3	12
58	Translating self-persuasion into an adolescent HPV vaccine promotion intervention for parents attending safety-net clinics. <i>Patient Education and Counseling</i> , 2017 , 100, 736-741	3.1	11

57	Role functioning is associated with survival in patients with hepatocellular carcinoma. <i>Quality of Life Research</i> , 2015 , 24, 1669-75	3.7	11
56	Are cancer registries a viable tool for cancer survivor outreach? A feasibility study. <i>Journal of Cancer Survivorship</i> , 2013 , 7, 155-63	5.1	11
55	Cervical Cancer Burden and Opportunities for Prevention in a Safety-Net Healthcare System. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2018 , 27, 1398-1406	4	11
54	Community events as viable sites for recruiting minority volunteers who agree to be contacted for future research. <i>Contemporary Clinical Trials</i> , 2011 , 32, 369-71	2.3	10
53	Was the drop in mammography rates in 2005 associated with the drop in hormone therapy use?. <i>Cancer</i> , 2011 , 117, 5450-60	6.4	10
52	Cervical cancer screening research in the PROSPR I consortium: Rationale, methods and baseline findings from a US cohort. <i>International Journal of Cancer</i> , 2019 , 144, 1460-1473	7.5	10
51	Biophysicochemical motifs in T cell receptor sequences as a potential biomarker for high-grade serous ovarian carcinoma. <i>PLoS ONE</i> , 2020 , 15, e0229569	3.7	9
50	Test-retest reliability of self-reported mammography in women veterans. <i>Preventive Medicine</i> , 2006 , 42, 320-6	4.3	9
49	Social Disadvantage, Healthcare Utilization, and Colorectal Cancer Screening: Leveraging Longitudinal Patient Address and Health Records Data. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2018 , 27, 1424-1432	4	9
48	County-level outcomes of a rural breast cancer screening outreach strategy: a decentralized hub-and-spoke model (BSPAN2). <i>Translational Behavioral Medicine</i> , 2017 , 7, 349-357	3.2	8
47	Tailored information increases patient/physician discussion of colon cancer risk and testing: The Cancer Risk Intake System trial. <i>Preventive Medicine Reports</i> , 2016 , 4, 6-10	2.6	8
46	Does language moderate the influence of information scanning and seeking on HPV knowledge and vaccine awareness and initiation among Hispanics?. <i>Ethnicity and Disease</i> , 2013 , 23, 95-102	1.8	8
45	Understanding Underuse of Advance Care Planning Among a Cohort of African American Patients With Advanced Cancer: Formative Research That Examines Gaps in Intent to Discuss Options for Care. <i>American Journal of Hospice and Palliative Medicine</i> , 2019 , 36, 1057-1062	2.6	7
44	Cervical cancer screening among HIV-infected women in an urban, United States safety-net healthcare system. <i>Aids</i> , 2018 , 32, 1861-1870	3.5	7
43	Developing a Tablet-Based Self-Persuasion Intervention Promoting Adolescent HPV Vaccination: Protocol for a Three-Stage Mixed-Methods Study. <i>JMIR Research Protocols</i> , 2016 , 5, e19	2	7
42	Correlates of self-reported colorectal cancer screening accuracy in a multi-specialty medical group practice. <i>Open Journal of Epidemiology</i> , 2013 , 3, 20-24	0.2	7
41	Assessing local capacity to expand rural breast cancer screening and patient navigation: An iterative mixed-method tool. <i>Evaluation and Program Planning</i> , 2017 , 61, 113-124	1.7	6
40	County-level estimates of human papillomavirus vaccine coverage among young adult women in Texas, 2008 2013 , 65, 37-40		6

39	Depression and Anxiety Are Common Among Patients With Cirrhosis. <i>Clinical Gastroenterology and Hepatology</i> , 2020 ,	6.9	6
38	Blood-based biomarkers of human papillomavirus-associated cancers: A systematic review and meta-analysis. <i>Cancer</i> , 2021 , 127, 850-864	6.4	6
37	High Initiation of Adjuvant Hormonal Therapy Among Uninsured Stages I-III Breast Cancer Patients Treated in a Safety-Net Healthcare System. <i>Journal of Women's Health</i> , 2017 , 26, 655-661	3	5
36	Validation of self-reported post-treatment mammography surveillance among breast cancer survivors by electronic medical record extraction method. <i>Breast Cancer Research and Treatment</i> , 2015 , 151, 427-34	4.4	5
35	Do traditional economic theories of free riding behavior explain spatial clustering of HPV vaccine uptake?. <i>SSM - Population Health</i> , 2019 , 8, 100421	3.8	5
34	Lessons learned from developing a tailored print intervention: a guide for practitioners and researchers new to tailoring. <i>Health Promotion Practice</i> , 2008 , 9, 281-8	1.8	5
33	The impact of intimate partner violence on breast and cervical cancer survivors in an integrated, safety-net setting. <i>Journal of Cancer Survivorship</i> , 2020 , 14, 906-914	5.1	5
32	Identifying quality improvement targets to facilitate colorectal cancer screening completion. <i>Preventive Medicine Reports</i> , 2018 , 9, 138-143	2.6	4
31	Modification and validation of the Treatment Self Regulation Questionnaire to assess parental motivation for HPV vaccination of adolescents. <i>Vaccine</i> , 2016 , 34, 4985-4990	4.1	4
30	Validity of self-reported genetic counseling and genetic testing use among breast cancer survivors. <i>Journal of Cancer Survivorship</i> , 2013 , 7, 624-9	5.1	4
29	Evaluating a De-Centralized Regional Delivery System for Breast Cancer Screening and Patient Navigation for the Rural Underserved 2014 , 66, 25-34		4
28	Anal Cancer and Anal Cancer Screening Knowledge, Attitudes, and Perceived Risk Among Women Living With HIV. <i>Journal of Lower Genital Tract Disease</i> , 2021 , 25, 43-47	3.6	3
27	Novel Application of Predictive Modeling: A Tailored Approach to Promoting HCC Surveillance in Patients With Cirrhosis. <i>Clinical Gastroenterology and Hepatology</i> , 2021 ,	6.9	3
26	Reply. <i>Hepatology</i> , 2017 , 66, 1002-1003	11.2	2
25	Behavioral research in cancer screening. 2009 , 255-278		2
24	Reactions of women underscreened for cervical cancer who received unsolicited human papillomavirus self-sampling kits. <i>Journal of Medical Screening</i> , 2020 , 27, 146-156	1.4	2
23	Evaluating the Validity of the Risk Perception Survey for Developing Diabetes Scale in a Safety-Net Clinic Population of English and Spanish Speakers. <i>The Diabetes Educator</i> , 2020 , 46, 73-82	2.5	2
22	Out of reach? Correlates of cervical cancer underscreening in women with varying levels of healthcare interactions in a United States integrated delivery system. <i>Preventive Medicine</i> , 2021 , 145, 106410	4.3	2

21	Anal cancer screening among women with HIV: provider experiences and system-level challenges. <i>AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV</i> , 2021 , 1-7	2.2	2
20	Effects of program scale-up on time to resolution for patients with abnormal screening mammography results. <i>Cancer Causes and Control</i> , 2018 , 29, 995-1005	2.8	2
19	Substance use and mental health burden in head and neck and other cancer survivors: A National Health Interview Survey analysis. <i>Cancer</i> , 2021 ,	6.4	2
18	Patient, provider, and clinic factors associated with the use of cervical cancer screening. <i>Preventive Medicine Reports</i> , 2021 , 23, 101468	2.6	2
17	Multicenter Randomized Clinical Trial of a Mailed Outreach Strategy for Hepatocellular Carcinoma Surveillance.. <i>Clinical Gastroenterology and Hepatology</i> , 2021 ,	6.9	2
16	Primary care visit use after positive fecal immunochemical test for colorectal cancer screening. <i>Cancer</i> , 2017 , 123, 3744-3753	6.4	1
15	Long-term Mammography Adherence among Uninsured Women Enrolled in the Breast Screening and Patient Navigation (BSPAN) Program. <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2021 ,	4	1
14	Variation in the receipt of human papilloma virus co-testing for cervical screening: Individual, provider, facility and healthcare system characteristics. <i>Preventive Medicine</i> , 2021 , 154, 106871	4.3	1
13	Expanding COVID-19 Vaccine Availability: Role for Combined Orthogonal Serology Testing (COST). <i>Vaccines</i> , 2021 , 9,	5.3	1
12	T Cell Receptor Repertoires Acquired Routine Pap Testing May Help Refine Cervical Cancer and Precancer Risk Estimates. <i>Frontiers in Immunology</i> , 2021 , 12, 624230	8.4	1
11	COVID-19 Communication From Seven Health Care Institutions in North Texas for English- and Spanish-Speaking Cancer Patients: Mixed Method Website Study. <i>JMIR Cancer</i> , 2021 , 7, e30492	3.2	1
10	De-implementation of cervical cancer screening before age 21. <i>Preventive Medicine</i> , 2021 , 153, 106815	4.3	1
9	Provider perspectives on communication and dismissal policies with HPV vaccine hesitant parents.. <i>Preventive Medicine Reports</i> , 2021 , 24, 101562	2.6	1
8	Reimbursement Matters: Overcoming Barriers to Clinical Trial Accrual. <i>Medical Care</i> , 2021 , 59, 461-466	3.1	0
7	AuthorsResponse: Cost-effectiveness evidence for HPV self-sampling could be improved by giving greater attention to vulnerable populations. <i>Preventive Medicine</i> , 2020 , 139, 106081	4.3	
6	Legitimate and ethical: distinguishing when and how regulations apply in patient-oriented research. <i>American Journal of Bioethics</i> , 2011 , 11, 42-3	1.1	
5	Prevalence and correlates of false-positive results after 3-D screening mammography among uninsured women in a community outreach program. <i>Preventive Medicine Reports</i> , 2022 , 27, 101790	2.6	
4	Biophysicochemical motifs in T cell receptor sequences as a potential biomarker for high-grade serous ovarian carcinoma 2020 , 15, e0229569		

- 3 Biophysicochemical motifs in T cell receptor sequences as a potential biomarker for high-grade serous ovarian carcinoma **2020**, 15, e0229569
- 2 Biophysicochemical motifs in T cell receptor sequences as a potential biomarker for high-grade serous ovarian carcinoma **2020**, 15, e0229569
- 1 Biophysicochemical motifs in T cell receptor sequences as a potential biomarker for high-grade serous ovarian carcinoma **2020**, 15, e0229569