Curriculum Vitae

PERSONAL RECORDS



Nataliia Yu. Lukianova

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Author ID

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Scopus: 9242224900

Google Scholar: IE360W8AAAAJ&hl

Sex F

Date of birth 05/09/1974 Nationality Україна



Academic degree	Doctor of Biological Sciences, 14.01.07 "Oncology"
(degree, specialty)	
Academic title	Professor, 091-biology
Position	Head of department
Laboratory	Department of cytomorphology, molecular and biological markers of tumor growth
Institute	R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology, National
	Academy of Sciences of Ukraine (IEPOR NAS of Ukraine); Kyiv, Ukraine
Part-time position	Docent of the Department of Fundamental Medicine at the ESC «Institute of Biology and
-	Medicine» of Taras Shevchenko National University of Kyiv (on an hourly basis)

Academic disciplines in which he has taught:

Academic disciplines i	ii wilcii ne nas taugiit.
In the current year	Disciplines at the IEPOR NAS of Ukraine:
	"Experimental oncology: from theory to practice" - Doctor of Philosophy in the specialty
	091 "Biology", field of knowledge 09 "Biology"
	"Fundamentals of cytomorphology and molecular biological markers of tumor growth" -
	Doctor of Philosophy in the specialty 222 "Medicine", field of knowledge 22 "Health care"
	Disciplines at Taras Shevchenko National University of Kyiv
	ESC Institute of Biology and Medicine
	1. "Laboratory work technique" - EL "Bachelor" OP "Laboratory diagnostics"
In previous periods	"Experimental oncology: from theory to practice" - Doctor of Philosophy in the specialty
	091 "Biology", field of knowledge 09 "Biology"
	Disciplines at Taras Shevchenko National University of Kyiv
	"Clinical Laboratory Diagnostics" - EL "Bachelor" OP "Laboratory Diagnostics"
	"Oncology with evaluation of research results" - EL "Bachelor" OP "Laboratory diagnostics"

EXPERIENCE IN RESEARCH AND SCIENTIFIC AND PEDAGOGICAL WORK

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Period	Phase
Since 2015	Position: Head of Department of cytomorphology, molecular and biological markers of
	tumor growth
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: a series of lectures, seminars and practical classes for graduate
	students", scientific supervision of course and diploma projects of students and graduate
	students, research activities
	Field of activity or sector: Education and science
2017-2024	Position: Head of Laboratory of Mechanisms of Drug Resistance
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: a series of lectures, seminars and practical classes for graduate
	students", scientific supervision of course and diploma projects of students and graduate
	students, research activities
	Field of activity or sector: Education and science
Since 2015	Position: Docent of the Department of Fundamental Medicine (on an hourly basis)
	Educational and Scientific Center "Institute of Biology and Medicine", Taras Shevchenko National

	University of Kyiv (on an hourly basis); 03127, Kyiv, Hlushkova Avenue, 2
	Teaching: a series of lectures, seminars and workshops
	Field of activity or sector: Education
2016 2017	Position: Acting Head of the Laboratory of Mechanisms of Drug Resistance
2016-2017	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: scientific supervision of course and diploma projects of students,
	postgraduate students, research activities
	Field of activity or sector: Education and science
2015-2016	Position: Acting Head of the Laboratory of Cytomorphology and Molecular Biological
2013 2010	Markers of Tumor Growth
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: supervision of students' practical work, research activities
	Field of activity or sector: Education and science
2010-2015	Position: Senior Researcher of the Department of Mechanisms of Antitumor Therapy
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: supervision of students' practical work, research activities
	Field of activity or sector: Education and science
2009-2010	Position: Acting Senior Researcher of the Department of Mechanisms of Antitumor Therapy
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: supervision of students' practical work, research activities
	Field of activity or sector: Education and science
2008-2009	Position: Researcher of the Department of Mechanisms of Antitumor Therapy
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: supervision of students' practical work, research activities
	Field of activity or sector: Education and science
2006-2008	Position: Acting Researcher of the Department of Mechanisms of Antitumor Therapy
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: supervision of students' practical work, research activities
	Field of activity or sector: Education and science
2004-2006	Position: Acting Junior Researcher of the Laboratory of Oncogenetics
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: supervision of students' practical work, research activities
	Field of activity or sector: Education and science
2001-2004	Position: Lead Engineer of the Department of Mechanisms of Antitumor Therapy
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: research activities
	Field of activity or sector: Education and science
1999-2001	Position: Engineer of the Department of Mechanisms of Antitumor Therapy
	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Teaching and research activities: research activities
	Field of activity or sector: Education and science

EDUCATION

Period	Phase
2025p.	European school of oncology online course «CCI4EU - Cost of health care and drugs»
2024 p.	European school of oncology online course «Clinical trials and clinical research»
2018	Shupyk National University of Health Care of Ukraine, Ukraine, 04112, Kyiv, Dorohozhytska str. 9 Specialization in clinical laboratory diagnostics; certificate of advanced training Nº5991 of June 25, 2018.
2017	Academic title Senior Researcher in the specialty 091 - "Biology". The decision of the Academic Council of the RE Kavetsky IEPOR, National Academy of Sciences of Ukraine from "29" November 2017
2015	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/

	Doctor of Sciences (Biological), specialty 14.01.07 - "Oncology";
	RE Kavetsky IEPOR, National Academy of Sciences of Ukraine, Kyiv, Ukraine
	Dissertation topic: Experimental substantiation of efficiency of use of a ferromagnetic
	nanocomposite in overcoming of resistance of tumor cells to cisplatin; Diploma ДД№004713
2007	IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
	Candidate of Biological Sciences, specialty 14.01.07 - "Oncology"; Dissertation topic: Molecular-biological features of malignant ovarian tumors with the phenotype of drug resistance, Diploma № ДК 042543
1996 – 1999	Graduate student; IEPOR NAS of Ukraine, 45, Vasylkivska str, Kyiv-03022, Ukraine, https://www.iepor.site/
1991 – 1996	Faculty of Biology, Taras Shevchenko National University of Kyiv (Kyiv, Ukraine);
	Masters' degree in biology qualification specialist-biologist-cytologist, histologist and embryologist, teacher of biology; Diploma Nº BE Nº001347

PERSONAL SKILLS

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Title	Level
Languages skills	
Ukrainian	Native
Russian	Native
English	B2
Communication competence	Gained communication skills while working as the Head of the Laboratory of Mechanisms of Drug Resistance at the R.E. Kavetsky Institute of Experimental Pathology, Oncology, and Radiobiology of the National Academy of Sciences of Ukraine, as well as through participation in scientific councils, commissions, and organizing committees for conferences.
Organizational/manag erial competence	Led the Department of Cytomorphology and Molecular-Biological Markers of Tumor Growth, managed research projects and topics. Supervised five dissertation works of PhD and Candidates of Science. Member of the organizing committees of conferences and the editorial boards of the journals <i>Oncology</i> and <i>Experimental Oncology</i> .
Computer skills	Experienced user. I am proficient in MS Office (Excel, Power Point, Word), e-mail (Outlook Express). Confident work with various browsers (Opera, Firefox, Chrome, Internet Explorer). Skills in working with the Windows operating system. Work with scientific bibliographic databases (Google Scholar, Scopus).
Professional skills	Methodological arsenal: modern and classical methods of histological research, immunocytochemical and immunohistochemical, experimental oncology, general clinical oncology.
Areas of professional interest	Experimental and clinical oncology, drug resistance, molecular profile of malignant tumors, cytomorphology, epigenetics and genetics in oncology, individualization of treatment and prognosis of malignant tumors, nanotechnology in oncology, molecular pathophysiology of hormone-dependent tumors

ADDITIONAL INFORMATION

ADDITIONAL I	NFORMATION
Title	(titles of publications, presentations, projects, conferences, seminars, awards and prizes, membership in academies, professional and scientific associations, etc.)
Publication	Selected publications: 1. Chekhun V.F., Lukianova N.Yu., Borikun T.V., Bazas V.M., Yalovenko T.M., Shepelenko I.V., Zadvornyi T.V., Kliusov O.M., Dumanskii Y.V. / Chapter 2. The expression profile of tissue and circulating miRNAs for optimization of neoadjuvant therapy of breast cancer patients // Horizons in Cancer Research 2021; 80: 63-112. ISBN: 978-1-53619-563-7
	 Chekhun V.F., Lukianova N.Yu., Polishchuk L.Z., Nalieskina L.A., Zadvornyi T.V., Storchai D.M., Todor I.N., Sobchenko S.O., Demash D.V., Yalovenko T.M., Borikun T.V., Lozovska Yu.V., Vitruk Yu.V., Chepurnatyi M.V., Pikul M.V., Stakhovsky O.E., Voilenko O.A., Stakhovsky E.O. / Chapter 3. The role of lactoferrin expression in initiation and progression of most common hormone-dependent cancers // Horizons in Cancer Research 2017; 66: 51-85. ISBN: 978-1-53611-011-1
	 Lukianova N, Mushii O, Zadvornyi T, Chekhun V. (2025). Mast Cells as a Factor in Regulation of Breast Cancer Stromal Component Associated with Breast Cancer Aggressiveness. Experimental Oncology, 46(4), 311–323.

- Chekhun V., Zavelevich M., Philchenkov A., Lukianova N., Shlapatska L., Gluzman D., 2025. Identification of Leukemic Stem Cells: Possible Implication in Targeted Therapy of Acute Myeloid Leukemia. In: Rezaei, N. (Ed.), Comprehensive Hematology and Stem Cell Research, vol. 5, pp. 344–353. US: Elsevier. https://dx.doi.org/10.1016/B978-0-443-15717-2.00038-X. ISBN: 9780443157172
- Mushii O, Pavlova A, Bazas V, Zadvornyi T, Lukianova N. (2024). Osteopontin-regulated changes in the mast cell population associated with breast cancer. Experimental Oncology, 46(3), 209–220.
- 6. **Lukianova N,** Mushii O, Zadvornyi T, Chekhun V. (2024). Development of an algorithm for biomedical image analysis of the spatial organization of collagen in breast cancer tissue of patients with different clinical status. FEBS Open Bio, 14(2024), 675–686.
- Zadvornyi, T., Lukianova, N., Borikun, T., Tymoshenko, A., Mushii, O., Voronina, O., Vitruk I., Stakhovsky E., Chekhun, V. (2022). Mast cells as a tumor microenvironment factor associated with the aggressiveness of prostate cancer. *Neoplasma*, 69(6), 1490-1498.
- Chumachenko V, Virych P, Nie G, Virych P, Yeshchenko O, Khort P, Tkachenko A, Prokopiuk V, Lukianova N, Zadvornyi T, Rawiso M, Ding L, Kutsevol N. (2023). Combined Dextran-Graft-Polyacrylamide/Zinc Oxide Nanocarrier for Effective Anticancer Therapy in vitro. International Journal of Nanomedicine, 2023:18, 4821—4838
- Lykhova O, Zavelevich M, Philchenkov A, Vidasov N, Kozak T, Lozovska Y, Andrusyshyna I, Bishayee A, Borikun T, **Lukianova N**, Chekhun V. (2023) Does insulin make breast cancer cells resistant to doxorubicin toxicity? *Naunyn-Schmiedeberg's Arch Pharmacol*, 396, 3111–3122.
- Zadvornyi T, Lukianova N, Mushii O, Pavlova A, Voronina O, Chekhun V. (2023). Benign and malignant prostate neoplasms show different spatial organization of collagen. *Croatian* medical journal, 64(6), 413–420.
- 11. Chekhun V, Borikun T, Zadvornyi T, Mushii O, Stakhovsky E, Vitruk Yu, **Lukianova N**. (2024). Osteonectin (SPARC) prognostic value in prostate cancer. *Pathology Research and Practice* 254, 155053.
- 12. Kutsevol N, Kuziv Y, Bezugla T, Virych P, Marynin A, Borikun T, **Lukianova N**, Virych P, Chekhun, V. (2021). Application of new multicomponent nanosystems for overcoming doxorubicin resistance in breast cancer therapy. *Applied Nanoscience*, 1-11.
- 13. Kutsevol N, Naumenko, A, Harahuts Y, Chumachenko V, Shton I, Shishko E, **Lukianova N**, Chekhun, V. (2019). New hybrid composites for photodynamic therapy: synthesis, characterization and biological study. *Applied Nanoscience*, *9*(5), 881-888.
- Shevchuk O, Posokhova K., Todor I, Lukianova N, Nikolaev V, Chekhun V. (2015). Prevention of myelosuppression by combined treatment with enterosorbent and granulocyte colony-stimulating factor. Experimental oncology, 37(2), 135-138.
- Chekhun V, Mokhir A, Daum S, Todor I, Lukianova N, Shvets Y, Burlaka A (2015). Pharmacological effect of aminoferrocene in mice with L1210 leukemia. Experimental oncology.
- Chekhun V, Zalutskii I, Naleskina L, Lukianova N, Yalovenko T, Borikun T, Lukashevich V. (2015). Modifying effects of lactoferrin in vitro on molecular phenotype of human breast cancer cells. Experimental oncology, 37(3):181-6.
- 17. Burlaka A, Ganusevich I, Lozovska Y, **Lukianova N**, Chekhun V (2015). Redox-regulation of gelatinases during growth of cisplatin-sensitive and resistant Guerin carcinoma. *Experimental oncology*, 37(1), 36-39.
- 18. Daum S, Chekhun V, Todor I, Lukianova N, Shvets Y, Sellner L, Putzker K, Lewis J, Zenz T, de Graaf I, Groothuis G, Casini A, Zozulia O, Hampel F, Mokhir A. (2015). Improved synthesis of N-benzylaminoferrocene-based prodrugs and evaluation of their toxicity and antileukemic activity. *Journal of medicinal chemistry*, 58(4), 2015-2024.
- 19. Tkalia I, Vorobyova L, Grabovoy A, Svintsitsky V, Tarasova T, **Lukyanova N**, Chekhun, V. (2014). Increase of antitumor activity of cisplatin using agonist of gonadotropin-realising

- hormone and inhibitor of aromatase on the model of ascites ovarian tumor. *Experimental oncology*, 36(3), 184-190.
- Chekhun S, Lukyanova N, Shvets Y, Burlaka A, Buchynska L. (2014). Significance of ferritin expression in formation of malignant phenotype of human breast cancer cells. Experimental oncology, 36(3), 179-183.
- 21. Tkalia I, Vorobyova L, Svintsitsky V, Nespryadko S, Goncharuk I, **Lukyanova N**, Chekhun V. (2014). Clinical significance of hormonal receptor status of malignant ovarian tumors. *Experimental oncology*, 36(2), 125-133.
- Enzmann H, Brunnemann K, Iatropoulos M, Shpyleva S, Lukyanova N, Todor I, Moored M, Spichera K, Chekhun V, Tsudad H, Williams G. (2013). Inter-laboratory comparison of turkey in ovo carcinogenicity assessment (IOCA) of hepatocarcinogens. *Experimental and Toxicologic Pathology*, 65(6), 729-735.
- Naleskina L, Todor I, Nosko M, Lukianova N, Pivnyuk V, Chekhun V (2013). Alteration in lipid composition of plasma membranes of sensitive and resistant Guerin carcinoma cells due to the action of free and liposomal form of cisplatin. *Experimental oncology*, 35(3), 192-197. Q2
- Chekhun V, Lukyanova N, Burlaka A, Bezdenezhnykh N, Shpyleva S, Tryndyak V, Pogribny I. (2013). Iron metabolism disturbances in the MCF-7 human breast cancer cells with acquired resistance to doxorubicin and cisplatin. *International journal of oncology*, 43(5), 1481-1486. Q2

Patents:

- 25. Patent of Ukraine for the invention. Antitumor ferromagnetic nanocomposite / Chekhun V.F., Lukianova N.Yu., Gorbyk P.P. etc.//. No. 112490 dated 12.09.2016, Bull. No. 17/2016; https://iprop-ua.com/inv/5l6diop1
- 26. Ukrainian patent for a utility model. The method of predicting the risk of recurrence in patients with prostate cancer / Chekhun V.F., Zhilchuk Yu.V., Lukianova N.Yu., Sakalo V.S., Sakalo A.V. // No. 120395, dated 25.10.2017. Bull. No. 20; https://uapatents.com/5-120395-sposib-prognozuvannya-riziku-viniknennya-recidiviv-u-khvorikh-na-rak-peredmikhurovo-zalozi.html
- 27. Ukrainian patent for a utility model. A method of predicting the risk of recurrence in breast cancer patients/ Klyusov O. M., Borikun T. V., Chekhun V. F., Shepelenko I. V., Lukianova N. Yu., Anikusko M. F./ / No. 112212 dated 12.12.2016. Bul. No. 23. https://iepor.kiev.ua/docs/Patent-Image-C/112212.jpg
- 28. Ukrainian patent for a utility model. The method of determining the malignancy degree of tumors in patients with breast cancer / Chekhun S. V., Borikun T. V., Lukianova N. Yu., Chekhun V. F., Sobchenko S. O., Klyusov O. M., Shepelenko I. V. // No. 111510 dated 10.11.2016. Bul. No. 21. https://iepor.kiev.ua/docs/Patent-Image-C/111510.jpg

Projects

Over the past 10 years, I have participated in 17 scientific and technical projects.

Head.

Name of the project « Investigation of the processes of influence of Feroplat nanocomposite on the structural and functional state of breast cancer cells» (Registration number in UkrINTEI 0118U001910)

Name of the competition: Targeted comprehensive program of fundamental scientific research NAS of Ukraine «Fundamental problems of creating new nanomaterials and nanotechnologies» 2015–2019.

Implementing period: 2018 Number of participants: 10

Name of the project «Experimental estimation of the effectiveness of application and biocompatibility testing algorithm of domestic implantation materials, based on calcium phosphates, for the restoration of the function of the musculoskeletal system in the malignant process» (Registration number in UkrINTEI 0117U001729)

Name of the competition: Targeted program of scientific research NAS of Ukraine «Materials for medicine and medical equipment and technologies for their production and use» 2017-2021.

Implementing period: 2017-2021

Number of participants: 8

Name of the project «Development and implementation of a panel of predictive miRNAs for the personalized design of neoadjuvant therapy for breast cancer patients» (Registration number in UkrINTEI 0119U101242)

Name of the competition: Scientific and technical projects of institutions of the NAS of Ukraine in 2019

Implementing period: 2019 Number of participants: 8

Kesponsible performer:

Name of the project «Development and implementation of a prognostic panel of breast cancer biomarkers for personalized monitoring of the tumor process» (Registration number in UkrINTEI 0116U006053)

Name of the competition: Scientific and technical projects of the NAS of Ukraine in 2016

Implementing period: 2016 Number of participants: 8

Name of the project «New multifunctional hybrid nanocomposites for photodynamic chemotherapy of malignant tumors» (Registration number in UkrINTEI 0117U007033)

Name of the competition: Joint competition of scientific projects of higher educational institutions, scientific institutions of the NAS and national sectoral academies of sciences of Ukraine

Implementing period: 2017-2018 Number of participants: 11

Name of the project: Preclinical pharmaco-toxicological studies of antitumor nanocomposite based on iron oxide and cisplatin (Registration number in UkrINTEI 0119U103001)

Name of the competition: State order for the most important scientific and technical (experimental) developments and scientific and technical products in 2019-2020

Implementing period: 2019-2020 Number of participants: 9

Name of the project: Development and validation of complex treatment technology for young patients with breast cancer (Registration number in UkrINTEI 0122U201203)

Name of the competition: State order for the most important scientific and technical (experimental) developments and scientific and technical products in 2022-2023

Implementing period: 2022-2023 Number of participants: 13

Name of the project: «Comprehensive Cancer Infrastructure In Europe» № 101103746 — CCI4EU — HORIZON-MISS-2022-CANCER-01 (Horizon Europe Grant Agreement No 101103746, 24.04.2023), Organisation of European Cancer Institutes (OECI)

Implementing period: 2023-2026 Number of participants: 4

Conferences

- 1. XIII Congress of Oncologists and Radiologists of Ukraine, Kyiv, May 26-28, 2016
- 2. International scientific conference «Integrated clinical and pathogenetic approaches in diagnosis and therapy of cancer» (Kyiv, 2016).
- 3. Scientific and practical conference for young scientists "Prospects Of Diagnostics And Treatment Of Oncological Pathology" March 18, 2016, Kyiv.
- 4. International Scientific Conference «Normal and Cancer Stem Cells: Discovery, Diagnosis and Therapy» (Kyiv. 2017).
- 5. Scientific and Practical Conference of Young Scientists "Fundamental Medicine: Integrated Approaches to Cancer Therapy" (Kyiv, 2019).
- 6. Scientific and practical conference "Innovative technologies of screening, diagnostics and personalized cancer therapy" October 3 4, 2019, Kyiv.
- 7. II international scientific conference «Tumor and Host: Novel Aspects of Old Problem» (Kyiv, 2019).
- 8. XIV Congress of Oncologists and Radiologists of Ukraine, dedicated to the 100th anniversary of the National Cancer Institute (Kyiv, 2021).

	9. 16th Annual Meeting Of The Korean Society Of Medical Oncology & 2023 International	
	Conference. Seoul, Korea, Sep. 7–8, 2023.	
	10. Riga Stradinš University International Student Conference in "Health and Social Sciences"	
	2022: 24-25 March, 2022 Riga	
	11. EACR-Worldwide Cancer Research Meeting "The Structural Microenvironment: Breaking down	
	the walls of cancer", Worldwide: 22 - 23 February 2022.	
	12. 16th Annual Meeting Of The Korean Society Of Medical Oncology & 2023 International	
	Conference. Seoul, Korea, Sep. 7– 8, 2023.	
	13. 9th Annual International Remote Conference: Science and Society. March 2-3rd and 23rd,	
	2024, Worldwide	
Awards &	2018 - Honor "For scientific achievements"	
Excellence	2017 - Title "Inventor of the Year of the National Academy of Sciences of Ukraine"	
	2015 - Laureate of the RE. Kavetsky Award, National Academy of Sciences of Ukraine	
	2013 - Award of the National Academy of Sciences of Ukraine "For professional achievements	
	2010 - Diploma of the Presidium of the NAS of Ukraine	
	2009-2010 - Scholarsip from the President of Ukraine for young scientists NAS of Ukraine	
	2007-2009 - Fellow of the World Laboratory	
	Since 2020 – Member of the Board of the Ukrainian society for cancer research (USCR)	
scientific	Since 2022 – Member of Ukrainian Biochemical Society (FEBS Member Society)	
societies	Since 2025 – Member of European Society for Clinical Investigation (ESCI)	
	Since 2024 – Member of American Association for Cancer Research (AACR)	
Citation	h-index (Scopus) 16, 1,053 citations	