

IVA KIRAC, MD., PhD.

surgical oncologist at University Hospital for Tumors, Sestre milosrdnice University Hospital Center, Zagreb, Croatia

Nationality: Croatian

Place of Birth: Zagreb, Croatia

SUMMARY OF QUALIFICATIONS

2019 Senior Research Associate at Medical School University of Zagreb

2019 Auditor course for OECI

2016 Research Associate at Medical School University of Zagreb

2015 Abdominal Surgery Board Exam

2013 EBSQ examination in Surgical Oncology 2012 Research Associate at Medical School University of Zagreb

2012 Thesis on Determination of frequency of risk alleles in single nucleotide polymorphisms rs10795668

(LOC338591), rs16892766 (EIF3H), rs3802842 (LOC120376) i rs4939827 (SMAD7) in patients with colorectal cancer at School of Medicine, University of Zagreb

2011 General Surgery Board Exam

2006 State license

2005 Graduated at the Medical School, University of Zagreb

ADDITIONAL PROFESSIONAL TRAININGS

2022/2023 IDEAL4RWE training grant from DIGICORE

2021 Applied artificial Intelligence for Health Care, Harvard TH Chan, USA

2020 ESSO course on minimally invasive EG surgery, Utrecht, Netherlands

2019 OECI training course for auditors

2018 Course of surgical ultrasonography- ESSU/IOUS

2017 Advanced minimally invasive colorectal surgery course, Rijeka, Croatia

2009 Abdominal Ultrasound Course, Zagreb, Croatia

2007 IASGO Postgraduate Course, Athens, Greece

2005 ESO Student oncology course in Ioannina, Greece

PROFESSIONAL EXPERIENCE

10/2019, 26/10-7/11/2014, 3/2015, 6/2016 Stay at National Cancer Institute Hospital, Tokyo, Japan (T. Sano)

11/2018 OECI Accreditation Auditor Course, Milan, Italy 6/2018 Hereditary Gastrointestinal Cancer Unit, Istituto di Tumori, Milan, Italy (M. Vitellaro)

5/2014 Invited lecturer on European Oncological Pharmacy Congress, Krakow, Poland 2/2013 Lecture on scientific writing on Medical School University of Zagreb

4/2013 Invited Lecture on genetic epidemiology of colorectal cancer on postgraduate course School of Medicine University of Mostar, Bosnia and Herzegovina

26/1-28/1/2012 Complex Disease Genetics for Clinicians Workshop, Wellcome Trust, Hinxton (Cambridge), United Kingdom

17/7-30/7/2010 Part of thoracic surgery rotation at Cardiothoracic Surgery Unit at Massachusetts General Hospital, Boston, United States (Douglas J Mathiesen)

25/5-29/5/2009 International Course in Digestive Surgery, Madrid, Spain.

8/9-31/10/2008 Part of abdominal surgery rotation at Digestive Surgery Department at 2nd Medical School of Charles University and Central Military Hospital in Prague Czech Republic (M. Ryska). 16/10/2006 –

28/10/2006 Observership at Surgery Department, Sloan Kettering Memorial Cancer Center, New York, United States (Y. Fong).

25/4/2005 – 20/5/2005 Medical student internship at Digestive Surgery Department, University Hospital, Padova, Italy (D. D' Amico).

2/8-27/8/2004 Medical student internship at Digestive Surgery Department, University Hospital 'N. Beaujon', Paris, France (J. Belghiti).

28/7/2003 – 8/8/2003 Medical student internship at Cardiac Surgery department, Institute of clinical and experimental medicine (IKEM), Prag, Czech Republic (J. Pirk).

2002-2006 Volunteering at Laboratory for Oxidative Stress at 'Rudjer Boskovic Institute', Zagreb, Croatia (N. Zarkovic).

MEMBERSHIP

European Society of Surgical Oncology

ESA-IC Euro-Periscope Research Group

IGET

OHDSI

EU PROJECTS

MC in COST actions:

2017-2022 CA17118 TRANSCOLON

2017-2021 CA15204 EUPERISCOPE

2011-2016 BM1206 on hereditary colorectal cancer

2022- BEACON PROJECT (PI)

2022- Quality of Life in Oncology: measuring what matters for cancer patients and survivors in Europe – EuonQoL-EUonQoL (SI)

2022- COMPREHENSIVE CANCER INFRASTRUCTURES 4 EUROPE - CCI4EU (SI)

SCIENTIFIC AND TECHNOLOGY COLLABORATION with Serbia 2019-2020: Hereditary colorectal cancer institutional registry formation and counseling network (PI)

CLINICAL TRIALS

1. 2014-2016: V212-011 Randomized, placebo-controlled phase III clinical trial to evaluate the safety and efficacy of V212 in adult patients with solid tumors or hematological malignancies; Merck, clinical trial, investigator (SI).

2. 2015-2018. RP-016-14 Development of genotyped and phenotyped bank of tumor xenografts originating from primary breast and colon tumors; Fidelta: scientific trial, examiner (collaborator) - contribution is determining the possibility of developing a xenograft surrogate for therapy (SI)

3. 2019- (A Randomized, Open-label Study to compare Propofol Anaesthesia with Sevoflurane Anaesthesia in terms of Overall Survival in Patients with Surgical Intervention for either Breast-, Colon- or Rectal cancer- Study name: CAN).

EUDRACT broj: 2013-002380-25 (PI)

4. 2021-22. Phase III, Prospective, Multinational, Multicenter, Randomized, Controlled, Two-arm, Double Blind Study to Assess Efficacy and Safety of D-PLEX Administered Concomitantly with the Standard of Care (SoC), Compared to a SoC Treated Control Arm, in Prevention of Post Abdominal Surgery Incision Infection (PI).

ORGANIZATION OF SCIENTIFIC OR EXPERT MEETINGS

International symposium on gastric cancer, June 1, 2015, Zagreb.

Meeting of the COST action for hereditary colorectal cancer, October 16-18, 2016. Dubrovnik

Meeting of the COST action for perioperative care of cancer patients, 13-14 February 2020. Dubrovnik

Colorectal cancer, where are we now? (online), 20 May 2021, Zagreb

Preconditioning of patients with gastrointestinal tumors. 21 October 2021, Lužnica

Organization of a series of lectures on nutrition and physical activity June and September 2022, IGET, Zagreb
Stakeholder meeting of the BEACON project, February 16-17, 2023, Zagreb
Dashboard of good practices in colorectal cancer, 25th May 2023, IGET, Zagreb
Dashboard of good practices: radiotherapy (online), 22nd November 2023, IGET, Zagreb

EDITORIAL OFFICE OF SCIENTIFIC AND PROFESSIONAL PAPERS

From 2012-2020. editor of the journal *Acta clinica Croatica* and since 2012 scientific editor of *Libri oncologici* - both journals are in Scopus. Editorial office of *Acta chirurgica Croatica*. 2022 editor in PLOS.

AWARDS AND GRANTS

2022 IDEAL4RWE grant from DIGICORE
2019 Quality of Life Foundation Grant, Tokyo , Japan
2018 Croatian Medical Association Grant
2012 Elected among most productive PhD students at Zagreb University School of Medicine 2005 University Scholarship of City of Zagreb
2004 Zagreb University Rector's Award

LANGUAGES

- English - fluent in speaking and writing
- French - fluent in speaking and writing
- Czech - fluent in speaking, intermediate in writing
- Italian and Japanese- beginner

RECENT SCIENTIFIC PAPERS

1. Fernandez-Rozadilla C, Timofeeva M, Chen Z, Law P, Thomas M, Schmit S, Díez-Obrero V, Hsu L, Fernandez-Tajes J, Palles C, Sherwood K, Briggs S, Svinti V, Donnelly K, Farrington S, Blackmur J, Vaughan-Shaw P, Shu XO, Long J et al. Deciphering colorectal cancer genetics through multi-omic analysis of 100,204 cases and 154,587 controls of European and east Asian ancestries. *Nat Genet.* 2023 Jan;55(1):89-99. doi: 10.1038/s41588-022-01222-9. Epub 2022 Dec 20.
2. National Institute for Health and Care Research Global Health Research Unit on Global Surgery. Reducing the environmental impact of surgery on a global scale: systematic review and co-prioritization with healthcare workers in 132 countries. *Br J Surg.* 2023 Jun 12;110(7):804-817. doi: 10.1093/bjs/znad092.
3. NIHR Global Health Unit on Global Surgery; COVIDSurg Collaborative. Elective surgery system strengthening: development, measurement, and validation of the surgical preparedness index across 1632 hospitals in 119 countries. *Lancet.* 2022 Nov 5;400(10363):1607-1617. doi: 10.1016/S0140-6736(22)01846-3. Epub 2022 Oct 31.
4. Cornish AJ, Law PJ, Timofeeva M, Palin K, Farrington SM, Palles C, Jenkins MA, Casey G, Brenner H, Chang-Claude J, Hoffmeister M, Kirac I, Maughan T, Brezina S, Gsur A, Cheadle JP, Aaltonen LA, Tomlinson I, Dunlop MG, Houlston RS. Modifiable pathways for colorectal cancer: a mendelian randomisation analysis. *Lancet Gastroenterol Hepatol.* 2020 Jan;5(1):55- 62. doi: 10.1016/S2468-1253(19)30294-8. Epub 2019 Oct 24.
5. Solak Mekić M, Pedišić I, Šobat H, Vučićević Boras V, Kirac I, Štefančić L, Šekerija M, Vrdoljak B, Vrdoljak DV. THE ROLE OF COMPLETE BLOOD COUNT PARAMETERS IN PATIENTS WITH COLORECTAL CANCER. *Acta Clin Croat.* 2018 Dec;57(4):624-629. doi: 10.20471/acc.2018.57.04.03.
6. Law PJ, Timofeeva M, Fernandez-Rozadilla C, Broderick P, Studd J, Fernandez-Tajes J, Farrington S, Svinti V, Palles C, Orlando G, Sud A, Holroyd A, Penegar S, Theodoratou E, Vaughan-Shaw P, Campbell H, Zgaga L, Hayward C, Campbell A, Harris S, Deary IJ, Starr J, Gatcombe L, Pinna M, Briggs S, Martin L, Jaeger E, Sharma-Oates A, East J, Leedham S, Arnold R, Johnstone E, Wang H, Kerr D, Kerr R, Maughan T, Kaplan R, Al-Tassan N, Palin K, Hänninen UA, Cajuso T, Tanskanen T, Kondelin J, Kaasinen E, Sarin AP, Eriksson JG, Rissanen H, Knekt P, Pukkala E, Jousilahti P, Salomaa V, Ripatti S, Palotie A, Renkonen-Sinisalo L, Lepistö A,

- Böhm J, Mecklin JP, Buchanan DD, Win AK, Hopper J, Jenkins ME, Lindor NM, Newcomb PA, Gallinger S, Duggan D, Casey G, Hoffmann P, Nöthen MM, Jöckel KH, Easton DF, Pharoah PDP, Peto J, Canzian F, Swerdlow A, Eeles RA, Kote-Jarai Z, Muir K, Pashayan N; PRACTICAL consortium, Harkin A, Allan K, McQueen J, Paul J, Iveson T, Saunders M, Butterbach K, Chang Claude J, Hoffmeister M, Brenner H, Kirac I, Matošević P, Hofer P, Brezina S, Gsur A, Cheadle JP, Aaltonen LA, Tomlinson I, Houlston RS, Dunlop MG. Association analyses identify 31 new risk loci for colorectal cancer susceptibility. *Nat Commun*. 2019 May 14;10(1):2154.
6. Forget P, Aguirre JA, Bencic I, Borgeat A, Cama A, Condrón C, Eintrei C, Eroles P, Gupta A, Hales TG, Ionescu D, Johnson M, Kabata P, Kirac I, Ma D, Mokini Z, Guerrero Orriach JL, Retsky M, Sandrucci S, Siekmann W, Štefančić L, Votta-Vellis G, Connolly C, Buggy D. How Anesthetic, Analgesic and Other Non-Surgical Techniques During Cancer Surgery Might Affect Postoperative Oncologic Outcomes: A Summary of Current State of Evidence. *Cancers (Basel)*. 2019 Apr 28;11(5).
7. He Y, Timofeeva M, Farrington SM, Vaughan-Shaw P, Svinti V, Walker M, Zgaga L, Meng X, Li X, Spiliopoulou A, Jiang X, Hyppönen E, Kraft P, Kiel DP; SUNLIGHT consortium, Hayward C, Campbell A, Porteous D, Vucic K, Kirac I, Filipovic M, Harris SE, Deary IJ, Houlston R, Tomlinson IP, Campbell H, Theodoratou E, Dunlop MG. Exploring causality in the association between circulating 25-hydroxyvitamin D and colorectal cancer risk: a large Mendelian randomisation study. *BMC Med*. 2018 Aug 14;16(1):142. doi: 10.1186/s12916-018-1119-2.
8. Kirac I, Matošević P, Augustin G, Šimunović I, Hostić V, Župančić S, Hayward C, Antoljak N, Rudan I, Campbell H, Dunlop MG, Velimir Vrdoljak D, Kovačević D, Zgaga L. SMAD7 variant rs4939827 is associated with colorectal cancer risk in Croatian population. *PLoS One*. 2013 Sep 16;8(9):e74042.
9. Markotic A, Langer S, Kelava T, Vucic K, Turcic P, Tokic T, Stefancic L, Radetic E, Farrington S, Timofeeva M, Rudan I, Campbell H, Dunlop M, Kirac I, Zgaga L. Higher Post-Operative Serum Vitamin D Level is Associated with Better Survival Outcome in Colorectal Cancer Patients. *Nutr Cancer*. 2019;71(7):1078-1085.
10. Theodoratou E, Montazeri Z, Hawken S, Allum GC, Gong J, Tait V, Kirac I, Tazari M, Farrington SM, Demarsh A, Zgaga L, Landry D, Benson HE, Read SH, Rudan I, Tenesa A, Dunlop MG, Campbell H, Little J.: Systematic meta-analyses and field synopsis of genetic association studies in colorectal cancer. *J Natl Cancer Inst*. 2012 Oct 3; 104(19):1433-57.
11. Dunlop MG, Dobbins SE, Farrington SM, Jones AM, Palles C, Whiffin N, Tenesa A, Spain S, Broderick P, Ooi LY, Domingo E, Smillie C, Henrion M, Frampton M, Martin L, Grimes G, Gorman M, Semple C, Ma YP, Barclay E, Prendergast J, Cazier JB, Olver B, Penegar S, Lubbe S, Chander I, Carvajal-Carmona LG, Ballereau S, Lloyd A, Vijayakrishnan J, Zgaga L, Rudan I, Theodoratou E; Colorectal Tumour Gene Identification (CORGI) Consortium, Starr JM, Deary I, Kirac I, Kovacević D, Aaltonen LA, Renkonen-Sinisalo L, Mecklin JP, Matsuda K, Nakamura Y, Okada Y, Gallinger S, Duggan DJ, Conti D, Newcomb P, Hopper J, Jenkins MA, Schumacher F, Casey G, Easton D, Shah M, Pharoah P, Lindblom A, Liu T; Swedish Low-Risk Colorectal Cancer Study Group, Smith CG, West H, Cheadle JP; COIN Collaborative Group, Midgley R, Kerr DJ, Campbell H, Tomlinson IP, Houlston RS. Common variation near CDKN1A, POLD3 and SHROOM2 influences colorectal cancer risk. *Nat Genet*. 2012 May 27;44(7):770-6.