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CURRICULUM VITAE

Sarah L. Kerns PhD

Associate Professor
Department of Radiation Oncology

OFFICE ADDRESS:

MACC Fund Research Center
8701 Watertown Plank Rd
Milwaukee, WI 53226
Email: skerns@mcw.edu

EDUCATION:

09/15/1998 - 05/15/2002 BS, University of Wisconsin - Madison, Madison, WI
09/15/2002 - 05/15/2007 PhD, Northwestern University Feinberg School of Medicine, Chicago, IL
07/01/2007 - 05/15/2008 MPH, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:

07/15/2008 - 05/15/2009 Intern, Health and Nutrition Unit, Society for Elimination of Rural Poverty (SERP), Hyderabad, India
07/01/2009 - 06/30/2011 Postdoctoral Fellow, Human Genetics, New York University Langone Medical Center, 550 1st Ave, New York, NY 10016
07/01/2011 - 08/15/2013 Postdoctoral Fellow, Radiation Oncology, Icahn School of Medicine at Mount Sinai, 1 Gustave L. Levy Pl, New York, NY 10029

FACULTY APPOINTMENTS:

09/01/2013 - 08/31/2014 Research Assistant Professor, Radiation Oncology, Icahn School of Medicine at Mount Sinai, 1 Gustave Levy Pl, New York, NY 10029
10/01/2014 - 03/25/2022 Assistant Professor, Radiation Oncology, University of Rochester, 601 Elmwood Ave, Rochester, NY 14642
04/01/2022 - Present Associate Professor, Radiation Oncology, Medical College of Wisconsin, 8701 Watertown Plank Rd., Milwaukee, WI 53226

AWARDS AND HONORS:

1999 - 2002 Scholarship, Citizens Scholarship Foundation of America
2004 - 2007 Predoctoral Fellowship Award, Chicago Baseball Cancer Charities
2008 MPH Field Experience Fund Award, Johns Hopkins Bloomberg School of Public Health
2010 Annual Meeting Award, American Society for Radiation Oncology(ASTRO)
2017 - 2021 Clinical Loan Repayment Program Award, NIH/NCI

MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:

2010 - Present American Society for Radiation Oncology(ASTRO) (Member)
2010 - Present American Society for Human Genetics (Member)
2016 - Present Radiation Research Society (Member)

EDITORSHIPS/EDITORIAL BOARDS/JOURNAL REVIEWS:

Editorial Board
2020 - Present Associate Section Editor, International Journal of Radiation Oncology Biology Physics
Journal Review
Nature Communications
Cancer Letters

Journal of Adolescent and Young Adult Oncology
International Journal of Radiation Oncology, Biology, Physics (official journal of ASTRO)
Lancet Oncology
PLoS family of journals
Radiotherapy and Oncology

Ad-Hoc Reviewer
Breast Cancer Now UK Grant Program
NCI Provocative Questions Study Section
Department of Defense Prostate Cancer Research Program Translational Science Study Section
Prostate Cancer UK Grant Program
ASTRO Grant Review Panel
Wellcome Trust - Sir Henry Wellcome Postdoctoral Fellowship Program
Belgian Foundation Against Cancer Grant Program
KWF Kankerbestrijding (Dutch Cancer Society) Grant Program

LOCAL/REGIONAL APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

2016 - 2019 Associate Chair/Chair/Past Chair, Medical Faculty Council, University of Rochester
2017 - 2018 Member, Faculty Senate Executive Committee, University of Rochester

NATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

2019 - Present Member, Science Council - Advancing Research Talent, American Society for Radiation Oncology (ASTRO)
2021 - Present Translational Science Expert, Symptom Management and Health-Related Quality of Life Steering Committee, National Cancer Institute (NCI)

INTERNATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

2010 - Present Member, Steering Committee, International Radiogenomics Consortium
2022 - Present Co-Lead, International Radiogenomics Consortium

RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:

Prior

Peer Review

Title:	Using Genetic and Epigenetic Aging Biomarkers to Predict Cognitive Impairments in Breast Cancer and Lymphoma Patients Receiving Chemotherapy Compared to Controls Across theAge Continuum
Source:	NIH/NCI UG1CA189961 Supplement
Role:	Co-Investigator
PI:	Michelle Janelsins
Dates:	08/01/2015 - 07/31/2019
Direct Funds:	$189,729
Title:	Cancer-Related Fatigue and Cognitive Impairment: An Investigation to Identify Inflammatory Mechanistic Pathways From Gene Expression to Protein Synthesis
Source:	NIH/NCI UG1CA189961 Supplement
Role:	Co-Investigator
PI:	Karen Mustian
Dates:	08/01/2015 - 07/31/2019
Direct Funds:	$150,000
Title:	Predictive Biomarkers of Adverse

	Reactions to Prostate Radiotherapy
Source:	NIH SBIR Phase I HHSN261201500043C
Role:	Co-Investigator
PI:	Elizabeth Peterson-Roth, Barry Rosenstein
Dates:	08/01/2015 - 04/30/2016
Direct Funds:	$150,000
Title:	Inflammatory Mechanisms Underlying Supplementation with Omega-3 Polyunsaturated Fatty Acids for Cancer-Related Fatigue and Cognitive Impairment
Source:	NIH/NCI UG1CA189961 Supplement
Role:	Co-Investigator
PI:	Luke Peppone
Dates:	08/01/2015 - 07/31/2019
Direct Funds:	$150,000
Title:	Genetic Modeling of Radiation Injury in Prostate Cancer Patients Treated with Radiotherapy
Source:	DOD Prostate Cancer Research Program, PC140371
Role:	Co-Investigator
PI:	Harry Ostrer, Barry Rosenstein
Dates:	09/01/2015 - 08/31/2018
Direct Funds:	$375,000
Title:	Risk Prediction for Development of Adverse Effects Following Radiotherapy for Prostate Cancer
Source:	NIH/NCI 1K07CA187546
Role:	Principal Investigator
PI:	Sarah Kerns
Dates:	09/18/2015 - 08/31/2021
Direct Funds:	$649,335
Title:	Predictive Biomarkers of Adverse Reactions to Prostate Radiotherapy
Source:	NIH SBIR Phase II HHSN261201500043C
Role:	Co-Principal Investigator
PI:	Elizabeth Peterson-Roth, Sarah Kerns, Barry Rosenstein
Dates:	09/19/2017 - 09/18/2020
Direct Funds:	$125,523 (Sub-contract to the University of Rochester)
Title:	University of Rochester Cancer Center NCORP Research Base
Source:	NIH/NCI UG1CA189961
Role:	Co-Investigator and Chair of Translational Research
PI:	Karen Mustian, Gary Morrow
Dates:	08/01/2019 - 07/31/2025

Direct Funds:	$34,244,460
Title:	Elucidating the role of the renin-angiotensin pathway in development of hemorrhagic radiation cystitis
Source:	University of Rochester Wilmot Cancer Institute
Role:	Co-Principal Investigator
PI:	Sarah Kerns, Brian Marples
Dates:	07/01/2020 - 06/30/2021
Direct Funds:	$25,000
Title:	Biobank to Support Translational Research
Source:	NIH/NCI UG1CA189961Supplement
Role:	Co-Principal Investigator
PI:	Michelle Janelsins, Sarah Kerns
Dates:	09/01/2021 - 08/31/2022
Direct Funds:	$285,661

INVITED LECTURES/WORKSHOPS/PRESENTATIONS:

Local

Sarah L. Kerns, Uncovering Risk Factors for Treatment Toxicity -The Application of Genomics to Cancer Survivorship, Cancer Survivorship Research Program Seminar Series, Indiana University Simon Cancer Center, 2015

Sarah L. Kerns, Radiogenomics: Identifying Genetic Risk Factors for Late Toxicity Following Radiotherapy, Department of Epidemiology Seminar Series, T.H. Chan School of Public Health at Harvard University, 2016

Sarah L. Kerns, Genetic Risk Factors for Late Radiotherapy Toxicity in Cancer Survivors, Grant Rounds, Department of Radiation Oncology, Icahn School of Medicine at Mount Sinai, 2018

Sarah L. Kerns, Integrative Clinical-Genetic Risk Models of Radiotoxicity in Prostate Cancer Survivors, Special Seminar for the Cancer Control and Survivorship Program, St. Jude Children's Research Hospital, 2021

Regional

Sarah L. Kerns, Risk SNPs for Late Radiotherapy Toxicity in Prostate Cancer: Results of Collaborative Studies from the Radiogenomics Consortium, Imaging and Radiation Sciences (IMRAS) Symposium, Memorial Sloan Kettering Cancer Center, 2015

International

SL Kerns, H Ostrer, R Stock, W Li, J Moore, A Pearlman, C Campbell, Y Shao, N Stone, BS Rosenstein, Genome Wide Association Study to Identify Single Nucleotide Polymorphisms (SNPs) Associated with the Development of ErectileDysfunction in African-American Men Following Radiotherapy for Prostate Cancer, American Society for Radiation Oncology Annual Meeting, San Diego, CA, 2010

SL Kerns, N Stone, R Stock, Y Shao, H Ostrer, BS Rosenstein, Genetic Factors Influence Time to Undetectable PSA in Men with Prostate Cancer Treated by Radiotherapy, American Urological Association Annual Meeting, Washington D.C, 2011

SL Kerns, RG Stock, NN Stone, S Blacksburg, A Vega, D De Ruysscher, M Parliament, J Cesaretti, BS Rosenstein, H Ostrer, Genome-wide association study identifies a region on chromosome 11q14.3 associated with late rectal bleeding following radiation therapy for prostate cancer, American Society for Radiation Oncology (ASTRO) Annual Meeting, Atlanta, GA, 2013

Sarah L. Kerns, RGC Prostate GWAS Meta-analysis, International Radiogenomics Consortium Annual Meeting, Heidelberg, Germany, 2014

SL Kerns, GC Barnett, L Dorling, L Fachal, N Burnet, H Ostrer, M Parliament, BS Rosenstein, A Vega, CML West, RadiogenomicsConsortium meta-analysis of four Genome Wide Association Studies (GWAS) of late toxicity after radiotherapy for prostate cancer, European Society for Radiation Oncology

Annual Meeting, Vienna, Austria, 2014

Sarah L. Kerns, Risk SNPs for Late Radiotherapy Toxicity in Prostate Cancer: Collaborative Studies from the Radiogenomics Consortium, PRACTICAL/ELLIPSE Consortium Annual Meeting, Memorial Sloan-Kettering Cancer Center, 2015

Kerns SL, Dorling L, Fachal L, Barnett GC, Collaborative Research in Radiogenomics - Advice from the Dynamic Quartet to the New Kids on the Block, International Radiogenomics Consortium Annual Meeting, Montpellier, France, 2015

SL Kerns, C Fung, A Williams, M Abu Zaid, HD Sesso, DR Feldman, RJ Hamilton, DVaughn, C Beard, H Liu, DN Herrmann, D Sahasrabudhe, SD Fossa, L Einhorn, LB Travis, Cumulative Burden of Morbidity (CBM) among Testicular Cancer Survivors (TCS) in the Platinum Study, American Society of Clinical Oncology Cancer Survivorship Symposium, San Francisco, CA, 2016

Sarah L. Kerns, Meta-analysis of RGC Prostate Cancer GWAS, International Radiogenomics Consortium Annual Meeting, Maastricht, The Netherlands, 2016

Sarah L. Kerns, Meta-analysis of RGC Prostate Cancer GWAS, International Radiogenomics Consortium Annual Meeting, Barcelona, Spain, 2017

Sarah L. Kerns, Genetic Information for Risk Prediction of Radiotherapy Toxicity, American Society of Clinical Oncology (ASCO) Annual Meeting, Chicago, IL, 2018

Sarah L. Kerns, Oncoarray and Prostate Project Update, International Radiogenomics Consortium Annual Meeting, Manchester, UK, 2018

Sarah L. Kerns, Radiogenomics: Identification of Genomic Biomarkers Predictive of Outcomes Following Exposure to Radiation, Radiation Research Society Annual Meeting, Chicago, IL, 2018

Sarah L. Kerns, Prostate Late Radiotherapy Toxicity GWAS, International Radiogenomics Consortium Annual Meeting, Rochester, NY, 2019

Sarah L. Kerns, The Genetic Basis of Normal Tissue Adverse Response to Radiotherapy, Radiation Research Society Annual Meeting, Virtual, 2020

Sarah L. Kerns, Inherited Susceptibility to Normal Tissue Toxicity: Towards Personalized Radiotherapy and Radioprotection, American Society for Radiation Oncology Annual Meeting, San Antonio, TX, 2022

Sarah L. Kerns, Radiogenomics Fundamentals, Particle Therapy Co-Operative Group (PTCOG) Annual Meeting, Miami, FL, 2022

Sarah L. Kerns, Predicting Normal Tissue Toxicity: Ten Years and a Million SNPs Later, Wisdom from 'The West' Symposium, Manchester, UK, 2023

EXTRAMURAL TEACHING:

Resident and Fellow Education

2015 - 2022 University of Rochester Department of Radiation Oncology, Radiation Biology Course Director (2017-2020) and Instructor

2020 - Present American College of Radiology, Test item writer for the Radiation Oncology In-Training exam

2022 - Present The Medical College of Wisconsin, Radiation Biology Course instructor

Graduate Student Education

2004 Northwestern University Feinberg School of Medicine, Biochemistry - Teaching Assistant

2010 New York University Langone Medical Center, Scientific Integrity and Responsible Conduct of Research - Teaching Assistant

2015 - 2022 University of Rochester, PTH507 Cancer Biology Instructor

COMMUNITY SERVICE ACTIVITIES:

2018 - 2022 Board of Directors Member and Vice-Chair (2021-2022), C.U.R.E. Childhood Cancer Association

BIBLIOGRAPHY

Refereed Journal Publications/Original Papers

1. Kerns SL, Torke SJ, Benjamin JM, McGarry TJ. Geminin prevents rereplication during xenopus development.

J Biol Chem. 2007 Feb 23;282(8):5514-21.
2. Kerns SL, Ostrer H, Stock R, Li W, Moore J, Pearlman A, Campbell C, Shao Y, Stone N, Kusnetz L, Rosenstein BS. Genome-wide association study to identify single nucleotide polymorphisms (SNPs) associated with the development of erectile dysfunction in African-American men after radiotherapy for prostate cancer. Int J Radiat Oncol Biol Phys. 2010 Dec 01;78(5):1292-300. PMCID: PMC2991431
3. Guevara-Aguirre J, Guevara-Aguirre M, Hwa V, Prócel P, Saavedra J, Ostrer H, Fang P, Rosenfeld RG, Kerns S, Rosenbloom AL. Intrauterine and postnatal growth failure with normal GH/IGF1 axis and insulin-resistant diabetes in a consanguineous kinship. Eur J Endocrinol. 2012 Mar;166(3):521-9.
4. Kerns SL, Schultz KM, Barry KA, Thorne TM, McGarry TJ. Geminin is required for zygotic gene expression at the Xenopus mid-blastula transition. PLoS One. 2012;7(5):e38009. PMCID: PMC3360639
5. Kerns SL, Stock R, Stone N, Buckstein M, Shao Y, Campbell C, Rath L, De Ruysscher D, Lammering G, Hixson R, Cesaretti J, Terk M, Ostrer H, Rosenstein BS. A 2-stage genome-wide association study to identify single nucleotide polymorphisms associated with development of erectile dysfunction following radiation therapy for prostate cancer. Int J Radiat Oncol Biol Phys. 2013 Jan 01;85(1):e21-8. PMCID: PMC3616619
6. Buckstein M, Kerns S, Forysthe K, Stone NN, Stock RG. Temporal patterns of selected late toxicities in patients treated with brachytherapy or brachytherapy plus external beam radiation for prostate adenocarcinoma. BJU Int. 2013 Mar;111(3 Pt B):E43-7.
7. Barnett GC, Elliott RM, Alsner J, Andreassen CN, Abdelhay O, Burnet NG, Chang-Claude J, Coles CE, Gutiérrez-Enríquez S, Fuentes-Raspall MJ, Alonso-Muñoz MC, Kerns S, Raabe A, Symonds RP, Seibold P, Talbot CJ, Wenz F, Wilkinson J, Yarnold J, Dunning AM, Rosenstein BS, West CM, Bentzen SM. Individual patient data meta-analysis shows no association between the SNP rs1800469 in TGFB and late radiotherapy toxicity. Radiother Oncol. 2012 Dec;105(3):289-95. PMCID: PMC3593101
8. Kerns SL, Stone NN, Stock RG, Rath L, Ostrer H, Rosenstein BS. A 2-stage genome-wide association study to identify single nucleotide polymorphisms associated with development of urinary symptoms after radiotherapy for prostate cancer. J Urol. 2013 Jul;190(1):102-8.
9. Kerns SL, Stock RG, Stone NN, Blacksburg SR, Rath L, Vega A, Fachal L, Gómez-Caamaño A, De Ruysscher D, Lammering G, Parliament M, Blackshaw M, Sia M, Cesaretti J, Terk M, Hixson R, Rosenstein BS, Ostrer H. Genome-wide association study identifies a region on chromosome 11q14.3 associated with late rectal bleeding following radiation therapy for prostate cancer. Radiother Oncol. 2013 Jun;107(3):372-6. PMCID: PMC3787843
10. De Ruysscher D, Sharifi H, Defraene G, Kerns SL, Christiaens M, De Ruyck K, Peeters S, Vansteenkiste J, Jeraj R, Van Den Heuvel F, van Elmpt W. Quantification of radiation-induced lung damage with CT scans: the possible benefit for radiogenomics. Acta Oncol. 2013 Oct;52(7):1405-10.
11. Kerns SL, de Ruysscher D, Andreassen CN, Azria D, Barnett GC, Chang-Claude J, Davidson S, Deasy JO, Dunning AM, Ostrer H, Rosenstein BS, West CM, Bentzen SM. STROGAR - STrengthening the Reporting Of Genetic Association studies in Radiogenomics. Radiother Oncol. 2014 Jan;110(1):182-8. PMCID: PMC4786020
12. Cespedes MS, Kerns SL, Holzman RS, McLaren PJ, Ostrer H, Aberg JA. Genetic predictors of cervical dysplasia in African American HIV-infected women: ACTG DACS 268. HIV Clin Trials. 2013;14(6):292-302. PMCID: PMC4118741
13. Kerns SL, Ostrer H, Rosenstein BS. Radiogenomics: using genetics to identify cancer patients at risk for development of adverse effects following radiotherapy. Cancer Discov. 2014 Feb;4(2):155-65. PMCID: PMC3946319
14. Barnett GC, Thompson D, Fachal L, Kerns S, Talbot C, Elliott RM, Dorling L, Coles CE, Dearnaley DP, Rosenstein BS, Vega A, Symonds P, Yarnold J, Baynes C, Michailidou K, Dennis J, Tyrer JP, Wilkinson JS, Gómez-Caamaño A, Tanteles GA, Platte R, Mayes R, Conroy D, Maranian M, Luccarini C, Gulliford SL, Sydes MR, Hall E, Haviland J, Misra V, Titley J, Bentzen SM, Pharoah PD, Burnet NG, Dunning AM, West CM. A genome wide association study (GWAS) providing evidence of an association between common genetic variants and late radiotherapy toxicity. Radiother Oncol. 2014 May;111(2):178-85.
15. Rosenstein BS, West CM, Bentzen SM, Alsner J, Andreassen CN, Azria D, Barnett GC, Baumann M, Burnet N, Chang-Claude J, Chuang EY, Coles CE, Dekker A, De Ruyck K, De Ruysscher D, Drumea K, Dunning AM, Easton D, Eeles R, Fachal L, Gutiérrez-Enríquez S, Haustermans K, Henríquez-Hernández LA, Imai T, Jones GD, Kerns SL, Liao Z, Onel K, Ostrer H, Parliament M, Pharoah PD,

Rebbeck TR, Talbot CJ, Thierens H, Vega A, Witte JS, Wong P, Zenhausern F, Radiogenomics Consortium. Radiogenomics: radiobiology enters the era of big data and team science. Int J Radiat Oncol Biol Phys. 2014 Jul 15;89(4):709-13. PMCID: PMC5119272

16. Fachal L, Gómez-Caamaño A, Barnett GC, Peleteiro P, Carballo AM, Calvo-Crespo P, Kerns SL, Sánchez-García M, Lobato-Busto R, Dorling L, Elliott RM, Dearnaley DP, Sydes MR, Hall E, Burnet NG, Carracedo Á, Rosenstein BS, West CM, Dunning AM, Vega A. A three-stage genome-wide association study identifies a susceptibility locus for late radiotherapy toxicity at 2q24.1. Nat Genet. 2014 Aug;46(8):891-4.
17. Kerns SL, Guevara-Aguirre J, Andrew S, Geng J, Guevara C, Guevara-Aguirre M, Guo M, Oddoux C, Shen Y, Zurita A, Rosenfeld RG, Ostrer H, Hwa V, Dauber A. A novel variant in CDKN1C is associated with intrauterine growth restriction, short stature, and early-adulthood-onset diabetes. J Clin Endocrinol Metab. 2014 Oct;99(10):E2117-22. PMCID: PMC4184067
18. Kerns SL, West CM, Andreassen CN, Barnett GC, Bentzen SM, Burnet NG, Dekker A, De Ruysscher D, Dunning A, Parliament M, Talbot C, Vega A, Rosenstein BS. Radiogenomics: the search for genetic predictors of radiotherapy response. Future Oncol. 2014 Dec;10(15):2391-406.
19. Seibold P, Behrens S, Schmezer P, Helmbold I, Barnett G, Coles C, Yarnold J, Talbot CJ, Imai T, Azria D, Koch CA, Dunning AM, Burnet N, Bliss JM, Symonds RP, Rattay T, Suga T, Kerns SL, Bourgier C, Vallis KA, Sautter-Bihl ML, Claßen J, Debus J, Schnabel T, Rosenstein BS, Wenz F, West CM, Popanda O, Chang-Claude J. XRCC1 Polymorphism Associated With Late Toxicity After Radiation Therapy in Breast Cancer Patients. Int J Radiat Oncol Biol Phys. 2015 Aug 01;92(5):1084-1092.
20. Barnett GC, Kerns SL, Noble DJ, Dunning AM, West CM, Burnet NG. Incorporating Genetic Biomarkers into Predictive Models of Normal Tissue Toxicity. Clin Oncol (R Coll Radiol). 2015 Oct;27(10):579-87.
21. Kerns SL, Kundu S, Oh JH, Singhal SK, Janelsins M, Travis LB, Deasy JO, Janssens AC, Ostrer H, Parliament M, Usmani N, Rosenstein BS. The Prediction of Radiotherapy Toxicity Using Single Nucleotide Polymorphism-Based Models: A Step Toward Prevention. Semin Radiat Oncol. 2015 Oct;25(4):281-91. PMCID: PMC4576690
22. Ko HC, Powers AR, Sheu RD, Kerns SL, Rosenstein BS, Krieger SC, Mourad WF, Hu KS, Gupta V, Bakst RL. Lhermitte's Sign following VMAT-Based Head and Neck Radiation-Insights into Mechanism. PLoS One. 2015;10(10):e0139448. PMCID: PMC4598033
23. Bourgier C, Kerns S, Gourgou S, Lemanski C, Gutowski M, Fenoglietto P, Romieu G, Crompton N, Lacombe J, Pèlegrin A, Ozsahin M, Rosenstein B, Azria D. Concurrent or sequential letrozole with adjuvant breast radiotherapy: final results of the CO-HO-RT phase II randomized trial. Ann Oncol. 2016 Mar;27(3):474-80. PMCID: PMC4907345
24. Rosenstein BS, Capala J, Efstathiou JA, Hammerbacher J, Kerns SL, Kong FS, Ostrer H, Prior FW, Vikram B, Wong J, Xiao Y. How Will Big Data Improve Clinical and Basic Research in Radiation Therapy? Int J Radiat Oncol Biol Phys. 2016 Jul 01;95(3):895-904. PMCID: PMC4864183
25. Knoll MA, Salvatore M, Sheu RD, Knoll AD, Kerns SL, Lo YC, Rosenzweig KE. The use of isodose levels to interpret radiation induced lung injury: a quantitative analysis of computed tomography changes. Quant Imaging Med Surg. 2016 Feb;6(1):35-41. PMCID: PMC4775239
26. Baijer J, Déchamps N, Perdry H, Morales P, Kerns S, Vasilescu A, Baulande S, Azria D, Roméo PH, Schmitz A. TNFSF10/TRAIL regulates human T4 effector memory lymphocyte radiosensitivity and predicts radiation-induced acute and subacute dermatitis. Oncotarget. 2016 Apr 19;7(16):21416-27. PMCID: PMC5008295
27. Ahmed M, Dorling L, Kerns S, Fachal L, Elliott R, Partliament M, Rosenstein BS, Vega A, Gómez-Caamaño A, Barnett G, Dearnaley DP, Hall E, Sydes M, Burnet N, Pharoah PD, Eeles R, West CM. Common genetic variation associated with increased susceptibility to prostate cancer does not increase risk of radiotherapy toxicity. Br J Cancer. 2016 May 10;114(10):1165-74. PMCID: PMC4865979
28. Frisina RD, Wheeler HE, Fossa SD, Kerns SL, Fung C, Sesso HD, Monahan PO, Feldman DR, Hamilton R, Vaughn DJ, Beard CJ, Budnick A, Johnson EM, Ardeshir-Rouhani-Fard S, Einhorn LH, Lipshultz SE, Dolan ME, Travis LB. Comprehensive Audiometric Analysis of Hearing Impairment and Tinnitus After Cisplatin-Based Chemotherapy in Survivors of Adult-Onset Cancer. J Clin Oncol. 2016 Aug 10;34(23):2712-20. PMCID: PMC5019759
29. Andreassen CN, Rosenstein BS, Kerns SL, Ostrer H, De Ruysscher D, Cesaretti JA, Barnett GC, Dunning AM, Dorling L, West CML, Burnet NG, Elliott R, Coles C, Hall E, Fachal L, Vega A, Gómez-Caamaño A, Talbot CJ, Symonds RP, De Ruyck K, Thierens H, Ost P, Chang-Claude J, Seibold P, Popanda O, Overgaard M, Dearnaley D, Sydes MR, Azria D, Koch CA, Parliament M, Blackshaw M,

Sia M, Fuentes-Raspall MJ, Ramon Y Cajal T, Barnadas A, Vesprini D, Gutiérrez-Enríquez S, Mollà M, Díez O, Yarnold JR, Overgaard J, Bentzen SM, Alsner J, International Radiogenomics Consortium (RgC). Individual patient data meta-analysis shows a significant association between the ATM rs1801516 SNP and toxicity after radiotherapy in 5456 breast and prostate cancer patients. Radiother Oncol. 2016 Dec;121(3):431-439. PMCID: PMC5559879

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31. Herskind C, Talbot CJ, Kerns SL, Veldwijk MR, Rosenstein BS, West CM. Radiogenomics: A systems biology approach to understanding genetic risk factors for radiotherapy toxicity? Cancer Lett. 2016 Nov 01;382(1):95-109. PMCID: PMC5016239
32. De Ruysscher D, Defraene G, Ramaekers BLT, Lambin P, Briers E, Stobart H, Ward T, Bentzen SM, Van Staa T, Azria D, Rosenstein B, Kerns S, West C. Optimal design and patient selection for interventional trials using radiogenomic biomarkers: A REQUITE and Radiogenomics consortium statement. Radiother Oncol. 2016 Dec;121(3):440-446. PMCID: PMC5557371
33. Oh JH, Kerns S, Ostrer H, Powell SN, Rosenstein B, Deasy JO. Computational methods using genome-wide association studies to predict radiotherapy complications and to identify correlative molecular processes. Sci Rep. 2017 Feb 24;7:43381. PMCID: PMC5324069
34. Fung C, Sesso HD, Williams AM, Kerns SL, Monahan P, Abu Zaid M, Feldman DR, Hamilton RJ, Vaughn DJ, Beard CJ, Kollmannsberger CK, Cook R, Althouse S, Ardeshir-Rouhani-Fard S, Lipshultz SE, Einhorn LH, Fossa SD, Travis LB, Platinum Study Group. Multi-Institutional Assessment of Adverse Health Outcomes Among North American Testicular Cancer Survivors After Modern Cisplatin-Based Chemotherapy. J Clin Oncol. 2017 Apr 10;35(11):1211-1222. PMCID: PMC5455601
35. Azria D, Lapierre A, Gourgou S, De Ruysscher D, Colinge J, Lambin P, Brengues M, Ward T, Bentzen SM, Thierens H, Rancati T, Talbot CJ, Vega A, Kerns SL, Andreassen CN, Chang-Claude J, West CML, Gill CM, Rosenstein BS. Data-Based Radiation Oncology: Design of Clinical Trials in the Toxicity Biomarkers Era. Front Oncol. 2017;7:83. PMCID: PMC5406456
36. El Naqa I, Kerns SL, Coates J, Luo Y, Speers C, West CML, Rosenstein BS, Ten Haken RK. Radiogenomics and radiotherapy response modeling. Phys Med Biol. 2017 Aug 01;62(16):R179-R206. PMCID: PMC5557376
37. Lee S, Ostrer H, Kerns S, Deasy JO, Rosenstein B, Oh JH. Preconditioned random forest regression: Application to genome-wide study for radiotherapy toxicity prediction ACM-BCB 2017 - Proceedings of the 8th ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics. 20 August 2017:593.
38. Lee S, Kerns S, Ostrer H, Rosenstein B, Deasy JO, Oh JH. Machine Learning on a Genome-wide Association Study to Predict Late Genitourinary Toxicity After Prostate Radiation Therapy. Int J Radiat Oncol Biol Phys. 2018 May 01;101(1):128-135. PMCID: PMC5886789
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