



## Alberto Bardelli

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**Twitter:** <https://twitter.com/Albert0Bardelli>

**Nationality:** Italian

### SUMMARY OF RE-SEARCH INTERESTS

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**Colorectal cancers. Drug resistance and tumor evolution. Immunogenomics. Mutation-specific pharmacogenomic profiling.**

### WORK EXPERIENCE

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[ 2016 – Current ] **Full Professor**

*University of Torino, Dept. of Oncology*

**City:** Candiolo (TO)

**Country:** Italy

[ 2004 – Current ] **Director - Laboratory of Molecular Oncology**

*Candiolo Cancer Institute, FPO-IRCCS*

**City:** Candiolo (TO)

**Country:** Italy

### EDUCATION AND TRAINING

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[ 1991 – 1996 ] **PhD degree in Biochemistry and Molecular Biology**

*University College London (UCL). Ludwig Institute for Cancer Research*

**Address:** London, United Kingdom

**Main subject / occupational skills covered:**

Supervisor: Prof. M. Waterfield.

[ 1986 – 1991 ] **Master Degree in Biological Sciences**

*University of Torino*

**Address:** Torino, Italy

**Final grade:** 110/110 cum laude

## LICENSURE AND CERTIFICATION

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[ 1995 – 1999 ] **Specialization in Clinical Pathology, University of Torino, School of Medicine**

## PREVIOUS POSITIONS

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[ 1999 – 2004 ] **Postdoctoral Fellow, The Johns Hopkins University; School of Medicine**

Supervisor: Prof. Bert Vogelstein

[ 1996 – 1999 ]

**Postdoctoral Fellow, Candiolo Cancer Institute and the University of Torino, School of Medicine**

## FELLOWSHIPS, AWARDS AND ACADEMY MEMBERSHIPS

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[ 2021 ] **ERC Advanced Grant**

[ 2020 ] **Guido Venosta Award, FIRC AIRC, Presidenza della Repubblica Italiana**

[ 2019 ] **Member of the Johns Hopkins Society of Scholars**

[ 2018 – 2020 ] **Highly Cited Researcher, Web of Science, Claryvate**

[ 2017 ]

**Translational Research Award, European Society for Medical Oncology (ESMO)**

[ 2017 ] **Fellow of European Molecular Biology Organization (EMBO)**

[ 2016 ] **Grant for Oncology Innovation Award (GOI)**

[ 2015 ] **Fellow of European Academy of Cancer Sciences**

[ 2015 ] **Fellow of the Turin Academy of Sciences**

[ 2014 ] **Thomson Reuters Highly Cited Researcher**

[ 2004 ]

**The Alfred Blalock Research Award - Johns Hopkins Medical School, Baltimore USA**

[ 1999 – 2004 ] **Fellowship, Howard Hughes Medical Institute, Baltimore MD USA**

[ 1996 ] **Cecilia Cioffrese -Cancer Research Award, Carlo Erba Foundation**

[ 1994 ]

**Francesca e Ferdinando Quartero, Cancer Research Prize, Italian Cancer Association**

[ 1994 ] **VIII Mascia Brunelli-Award, Italian Cell Culture Association**

[ 1991 ]

**Graduated with Honor and Distinction (Laude, Menzione d'Onore), University of Torino**

## **EDITORIAL BOARDS**

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[ 2019 – Current ] **Editorial Board member, Genome Medicine**

[ 2017 – Current ] **Editorial Board member, Nature Reviews Clinical Oncology**

[ 2016 – Current ] **Editorial Board member, Cancer Discovery**

[ 2014 – Current ] **Editorial Board member, Molecular Oncology**

[ 2014 – Current ] **Editorial Board member, Clinical Cancer Drugs**

[ 2013 – Current ] **Editorial Board member, Cancer Treatment Reviews**

[ 2011 – Current ] **Associate Editor, BMC Gastroenterology**

[ 2010 – Current ] **Executive Editors, Molecular Cancer**

[ 2007 – Current ] **Editorial Board member, International Journal of Oncology.**

## **REVIEWER**

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Science, Nature, Cancer Cell, Cancer Discovery, Cancer Research, Clinical Cancer Research, Science Signaling, Nature Medicine, The EMBO Journal, Proceedings Of The National Academy Of Sciences (PNAS), The Journal of Clinical Investigation, NEJM, Nature Cancer.

## **COMMISSIONS OF TRUST**

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[ 2021 – 2022 ] **AACR Cancer Evolution Working Group**

[ 2022 ] **Oncology Chair, The European Fine Art Fair (TEFAF), Maastricht (NL)**

[ 2021 – Current ]

**Scientific Advisory Board member, Oncode Institute, Utrecht (The Netherlands)**

[ 2019 – Current ] **The Johns Hopkins Society of Scholars, Baltimore (USA)**

[ 2018 – Current ]

**Scientific Advisory Board member, MD Anderson Moon Shots Program, Houston (USA)**

[ 2018 – Current ] **Scientific Advisory Board member, Neophore, Cambridge (UK)**

[ 2017 – Current ]

**Scientific Advisory Board member, Cancer Research UK Manchester Institute, Manchester (UK)**

[ 2015 – Current ] **Board Member, European Association for Cancer Research (EACR)**

[ 2013 – Current ] **Scientific Committee, Pezcoller Foundation**

[ 2013 – Current ] **Scientific Committee, AIRC (Italian Association for Cancer Research)**

[ 2012 – Current ] **Director, Basic Research, Candiolo Cancer Institute, Candiolo (To), Italy**

[ 2008 – Current ] **Scientific Advisory Board member, Horizon Discovery, Cambridge (UK)**

[ 2018 – 2020 ] **President, EACR (European Association for Cancer Research)**

## MAJOR ACHIEVEMENTS

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### 1)

Identification of tumor-specific genomic lesions leading to constitutively active oncoproteins that can be pharmaceutically exploited paved the way to targeted therapies. My group has systematically used genomic screens of CRC samples to define new targets in this tumor type. In the past five years, we defined mutant BRAF, translocated TRK and ALK, and amplified HER2 as clinically-validated targets. These findings led to clinical trials aimed at targeting deregulated BRAF, NTRK, and HER2 in which my unit was actively engaged. The HERACLES trial is a paradigmatic example of these activities. (<https://clinicaltrials.gov/ct2/show/NCT00490841>).

## 2)

The hype generated by the so-called personalized targeted therapies was soon counteracted by the awareness that in nearly all patients, treatments are only transiently effective due to onset of secondary resistance. We defined several mechanisms of acquired resistance, including how CRC escape from EGFR, BRAF, TRK, and HER2 blockade. Genetic tracking of cancer cell populations showed how the development of resistance can be restrained in vitro and in vivo. For example, we recently reported that dependency on the WNT/APC/ $\beta$ -catenin signaling axis, an ancestral CRC oncogenic event, is maintained through development of resistance to multiple targeted therapies. These results suggest the use of trunk mutations as targets to restrain, or possibly prevent, the emergence of resistance in CRC (12).

## 3)

Liquid biopsies can be used to monitor clonal evolution and tumor heterogeneity, and to intercept the emergence of resistant clones non-invasively in patients (5). Our recent studies demonstrated that analysis of ctDNA is able to detect heterogeneous mechanisms of resistance to targeted therapies in CRCs, and that this approach can be used for the longitudinal follow up of patients (5-6, 9). Specifically, we optimized technologies (double DNA barcoding) to analyze with high sensitivity plasma ctDNA thus revealing detailed molecular maps of resistance mechanisms.

## 4)

Extensive efforts have been placed at developing drugs capable of restoring the function of tumor suppressor proteins in the hope that they could act as anticancer agents. Our data indicate that permanent inactivation (rather than reactivation) of certain tumor suppressors involved in DNA-repair could instead be pursued for therapeutic purposes (21). Specifically, our data suggest that targeting genes involved in DNA mismatch repair pathway facilitates the acquisition of neoantigens. The latter can be recognized by the immune system and restrict cancer growth (7).

**2021**

Invrea F, Punzi P, Petti C, Minelli R, Peoples MD, Bristow CA, Vurchio V, Corrado A, Bragoni A, Marchiò C, Bertotti A, Trusolino L, [Bardelli A](#), Isella C, Carugo A, Draetta GF, and Medico E.

Synthetic Lethality Screening Highlights Colorectal Cancer Vulnerability to Concomitant Blockade of NEDD8 and EGFR Pathways

**Cancers** (Basel). 2021 Jul 28;13(15):3805.

Fiorito V, Allocco AL, Petrillo S, Gazzano E, Torretta S, Marchi S, Destefanis F, Pacelli C, Audrito V, Provero P, Medico E, Chiabrando D, Porporato PE, Cancelliere C, [Bardelli A](#), Trusolino L, Capitanio N, Deaglio S, Altruda F, Pinton P, Cardaci S, Riganti C, Tolosano E.

The heme synthesis-export system regulates the tricarboxylic acid cycle flux and oxidative phosphorylation.

**Cell Reports**. 2021 Jun 15;35(11):109252.

Bonnal RJP, Rossetti G, Lugli E, De Simone M, Gruarin P, Brummelman J, Drufuca L, Passaro M, Bason R, Gervasoni F, Della Chiara G, D'Oria C, Martinovic M, Curti S, Ranzani V, Cordiglieri C, Alvisi G, Mazza EMC, Oliveto S, Silvestri Y, Carelli E, Mazzara S, Bosotti R, Sarnicola ML, Godano C, Bevilacqua V, Lorenzo M, Siena S, Bonoldi E, Sartore-Bianchi A, Amatu A, Veronesi F, Novellis P, Alloisio M, Giani A, Zucchini N, Opocher E, Pisani Ceretti A, Mariani, Biffo S, Prati D, [Bardelli A](#), Geginat J, Lanzavecchia A, Abrignani S, Pagani M

Clonally expanded EOMES+ Tr1-like cells in primary and metastatic tumors associate with disease progression

**Nat immunol**. 2021 Jun;22(6):735-745

Amodio V, Mauri G, Reilly NM, Sartore-Bianchi A, Siena S, [Bardelli A](#) and Germano G

Mechanisms of immune escape and resistance to checkpoint inhibitor therapies in mismatch repair deficient metastatic colorectal cancers

**Cancers** (Basel). 2021 May 27;13(11):2638

Russo M, Sogari A & [Bardelli A](#)

Adaptive Evolution: How Bacteria and Cancer Cells Survive Stressful Conditions and Drug Treatment.

**Cancer Discov**. 2021 May 5 [Online ahead of print]

Morello G, Cancila V, La Rosa M, Germano G, Lecis D, Amodio V, Zanardi F, Iannelli F, Greco D, La Paglia L, Fiannaca A, Urso AM, Graziano G, Ferrari F, Sangaletti S, Pupa SM, Chiodoni C, Pruneri G, [Bardelli A](#), Colombo MP, Tripodo C.

T cells expressing receptor recombination/revision machinery are detected in the tumor microenvironment and expanded in genomically over-unstable models.

**Cancer Immunol Res**. 2021 May 3 [Online ahead of print]

Della Chiara G, Gervasoni F, Fakiola M, Godano C, D'Oria C, Azzolin L, Bonnal RJP, Moreni G, Drufulca L, Rossetti G, Ranzani V, Bason R, De Simone M, Panariello F, Ferrari I, Fabbris T, Zanonato F, Forcato M, Romano O, Caroli J, Gruarin P, Sarnicola ML, Cordenonsi M, [Bardelli A](#), Zucchini N, Ceretti AP, Mariani NM, Cassingena A, Sartore-Bianchi A, Testa G, Gianotti L, Opocher E, Pisati F, Tripodo C, Macino G, Siena S, Bicciato S, Piccolo S, Pagani M.

Epigenomic landscape of human colorectal cancer unveils an aberrant core of pan-cancer enhancers orchestrated by YAP/TAZ.

**Nat Commun.** 2021 Apr 20;12(1):2340.

Di Nicolantonio F, Vitiello PP, Marsoni S, Siena S, Tabernero J, Trusolino L, Bernards R, and [Bardelli A](#)

Precision oncology in metastatic colorectal cancer - from biology to medicine.

**Nat Rev Clin Oncol.** 2021 Apr 16. [Online ahead of print]

Andrei P, Battuello P, Grasso G, Rovera E, Tesio N, [Bardelli A](#).

Integrated approaches for precision oncology in colorectal cancer: the more you know, the better.

**Semin Cancer Biol.** 2021 Apr 10:S1044-579X(21)00108-5. [Online ahead of print]

Picco G, Cattaneo C, van Vliet EJ, Crisafulli G, Rospo G, Consonni S, Vieira SF, Sánchez Rodríguez I, Cancelliere C, Banerjee R, Schipper L, Oddo D, Dijkstra KK, Cinatl J, Michaelis M, Yang F, Cell Model Network UK Group, Di Nicolantonio F, Sartore-Bianchi A, Siena S, Arena S, Voest E\*, [Bardelli A\\*](#), and Garnett MJ\* (\* Shared last authorship)

Werner helicase is a synthetic-lethal vulnerability in Mismatch Repair-Deficient Colorectal Cancer Refractory to Targeted Therapies, Chemotherapy and Immunotherapy.

**Cancer Discov.** 2021 Apr 9:candisc.1508.2020. [Online ahead of print]

Randon G, Yaeger R, Hechtman JF, Manca P, Fucà G, Walch H, Lee J, Élez E, Seligmann J, Mussolin B, Pagani F, Germani MM, Ambrosini M, Rossini D, Ratti M, Salvà F, Richman SD, Wood H, Nanjangud G, Gloghini A, Milione M, [Bardelli A](#), de Braud F, Morano F, Cremolini C, Pietrantonio F.

EGFR Amplification in Metastatic Colorectal Cancer.

**J Natl Cancer Inst.** 2021 Apr 7:djab069. [Online ahead of print]

Germano G, Lu S, Rospo G, Lamba S, Rousseau B, Fanelli S, Stenech D, Le DT, Hays J, Totaro MG, Amodio V, Chila R, Mondino A, Diaz LA, Di Nicolantonio F, [Bardelli A](#).

CD4 T cell dependent rejection of beta 2 microglobulin null mismatch repair deficient tumors.

**Cancer Discov.** 2021 Mar 2:candisc.0987.2020. [Online ahead of print.]

Cocco E, Lee JE, Kannan S, Schram AM, Won HH, Shifman S, Kulick A, Baldino L, Toska E, Arruabarrena-Aristorena A, Kittane S, Wu F, Cai Y, Arena S, Mussolin B, Kannan R, Vasani N, Gorelick AN, Berger MF, Novoplansky O, Jagadeeshan S, Liao Y, Rix U, Misale S, Taylor BS, [Bardelli A](#), Hechtman JF, Hyman DM, Elkabets M, de Stanchina E, Verma CS, Ventura A, Drilon A, Scaltriti M.

TRK xDFG mutations trigger a sensitivity switch from type I to II kinase inhibitors.

**Cancer Discov.** 2021 Jan;11(1):126-141

## 2020

Mauri G, Gori V, Bonazzina E, Amatu A, Tosi F, Bencardino K, Ruggieri L, Patelli G, Arena S, [Bardelli A](#), Siena S, Sartore-Bianchi A.

Oxaliplatin retreatment in metastatic colorectal cancer: Systematic review and future research opportunities.

**Cancer Treat Rev.** 2020 Dec;91:102112.

Khawaja H, Campbell A, Roberts JZ, Javadi A, O'Reilly P, McArt D, Allen WL, Majkut J, Rehm M, [Bardelli A](#), Di Nicolantonio F, Scott CJ, Kennedy R, Vitale N, Harrison T, Sansom OJ, Longley DB, Evergren E, Van Schaeybroeck S.

RALB GTPase: a critical regulator of DR5 expression and TRAIL sensitivity in KRAS mutant colorectal cancer.

**Cell Death Dis.** 2020 Oct 29;11(10):930.

Sartore-Bianchi A, Lonardi S, Martino C, Fenocchio E, Tosi F, Ghezzi S, Leone F, Bergamo F, Zagonel V, Ciardiello F, Ardizzoni A, Amatu A, Bencardino K, Valtorta E, Grassi E, Torri V, Bonoldi E, Sapino A, Vanzulli A, Regge D, Cappello G, [Bardelli A](#), Trusolino L, Marsoni S, Siena S.

Pertuzumab and trastuzumab emtansine in patients with HER2-amplified metastatic colorectal cancer: the phase II HERACLES-B trial.

**ESMO Open.** 2020 Sep;5(5):e000911.

Mauri G, Arena S, Siena S, [Bardelli A](#), Sartore-Bianchi A.

The DNA Damage Response pathway as a land of therapeutic opportunities for colorectal cancer.

**Ann Oncol.** 2020 Sep;31(9):1135-1147



Amodio V, Yaeger R, Arcella P, Cancelliere C, Lamba S, Lorenzato A, Arena S, Montone M, Mussolin B, Bian Y, Whaley A, Pinnelli M, Murciano-Goroff YR, Vakiani E, Valeri N, Liao WL, Bhalkikar A, Thyparambil S, Zhao HY, de Stanchina E, Marsoni S, Siena S, Bertotti A, Trusolino L, Li BT, Rosen N, Di Nicolantonio F, [Bardelli A\\*](#), Misale S\* (\* Shared last authorship)

EGFR blockade reverts resistance to KRAS G12C inhibition in colorectal cancer.

**Cancer Discov.** 2020 Aug;10(8):1129-1139

Rosen EY, Goldman DA, Hechtman JF, Benayed R, Schram AM, Cocco E, Shifman S, Gong Y, Kundra R, Solomon JP, [Bardelli A](#), Scaltriti M, Drilon A, Iasonos A, Taylor BS, Hyman DM.

TRK Fusions are Enriched in Cancers with Uncommon Histologies and the Absence of Canonical Driver Mutations.

**Clin Cancer Res.** 2020 Apr 1;26(7):1624-1632

Lorenzato A, Magrì A, Matafora V, Audrito V, Arcella P, Lazzari L, Montone M, Lamba S, Deaglio S, Siena S, Bertotti A, Trusolino L, Bachi A, Di Nicolantonio F, [Bardelli A](#), Arena S.

Vitamin C Restricts the Emergence of Acquired Resistance to EGFR-Targeted Therapies in Colorectal Cancer.

**Cancers** (Basel). 2020 Mar 14;12(3).

Arena S, Corti G, Durinikova E, Montone M, Reilly NM, Russo M, Lorenzato A, Arcella P, Lazzari L, Rospo G, Pagani M, Cancelliere C, Negrino C, Isella C, Bartolini A, Cassingena A, Amatu A, Mauri G, Sartore-Bianchi A, Mittica G, Medico E, Marsoni S, Linnebacher M, Abrignani S, Siena S, Di Nicolantonio F, [Bardelli A](#).

A subset of colorectal cancers with cross-sensitivity to olaparib and oxaliplatin.

**Clin Cancer Res.** 2020 Mar 15;26(6):1372-1384

Magrì A, Germano G, Lorenzato A, Lamba S, Chilà R, Montone M, Amodio V, Ceruti T, Sassi F, Arena S, Abrignani S, D'Incalci M, Zucchetti M, Di Nicolantonio F, [Bardelli A](#).

High-dose vitamin C enhances cancer immunotherapy.

**Sci Transl Med.** 2020 Feb 26;12(532).

**2019**

Russo M, Crisafulli G, Sogari A, Reilly NM, Arena S, Lamba S, Bartolini A, Amodio V, Magri A, Novara L, Sarotto I, Nagel ZD, Piatt CG, Amatu A, Sartore-Bianchi A, Siena S, Bertotti A, Trusolino L, Corigliano M, Gherardi M, Cosentino Lagomarsino M, Di Nicolantonio F, Bardelli A

Adaptive mutability of colorectal cancers in response to targeted therapies

**Science.** 2019 Dec 20;366(6472):1473-1480

Bertero L, Siravegna G, Rudà R, Soffietti R, Bardelli A, Cassoni P.

Peering through a keyhole: Liquid biopsy in primary and metastatic central nervous system tumours.

**Neuropathol Appl Neurobiol.** 2019 Dec;45(7):655-670

Crisafulli G, Mussolin B, Cassingena A, Montone M, Bartolini A, Barault L, Martinetti A, Morano F, Pietrantonio F, Sartore-Bianchi A, Siena S, Di Nicolantonio F, Marsoni S, Bardelli A, Siravegna G.

Whole exome sequencing analysis of urine trans-renal tumour DNA in metastatic colorectal cancer patients.

**ESMO Open.** 2019 Nov;4(6).

Lazzari L, Corti G, Picco G, Isella C, Montone M, Arcella P, Durinikova E, Zanella ER, Novara L, Barbosa F, Cassingena A, Cancelliere C, Medico E, Sartore-Bianchi A, Siena S, Garnett MJ, Bertotti A, Trusolino L, Di Nicolantonio F, Linnebacher M, Bardelli A\*, Arena S\* (\* Shared last authorship)

Patient-derived xenografts and matched cell lines identify pharmacogenomic vulnerabilities in colorectal cancer.

**Clin Cancer Res.** 2019 Oct 15;25(20):6243-6259

Siravegna G, Mussolin B, Venesio T, Marsoni S, Seoane J, Dive C, Papadopoulos N, Kopetz S, Corcoran RB, Siu LL, Bardelli A.

How liquid biopsies can change clinical practice in oncology.

**Ann Oncol.** 2019 Oct;30(10):1580-1590

Parikh AR, Leshchiner I, Elagina L, Goyal L, Levovitz C, Siravegna G, Livitz D, Rhrissorrakrai K, Martin EE, Van Seventer EE, Hanna M, Slowik K, Utro F, Pinto CJ, Wong A, Danysh BP, de la Cruz FF, Fetter IJ, Nadres B, Shahzade HA, Allen JN, Blaszkowsky LS, Clark JW, Giantonio B, Murphy JE, Nipp RD, Roeland E, Ryan DP, Weekes CD, Kwak EL, Faris JE, Wo JY, Aguet F, Dey-Guha I, Hazar-Rethinam M, Dias-Santagata D, Ting DT, Zhu AX, Hong TS, Golub TR, Iafrate AJ, Adalsteinsson VA, Bardelli A, Parida L, Juric D, Getz G, Corcoran RB

Liquid versus tissue biopsy for detecting acquired resistance and tumor heterogeneity in gastrointestinal cancers.

**Nat Med.** 2019 Sep;25(9):1415-1421

Goyal L, Shi L, Liu LY, Fece de la Cruz F, Lennerz JK, Raghavan S, Leshchiner I, Elagina L, Siravegna G, Ng RWS, Vu P, Patra KC, Saha SK, Uppot RN, Arellano R, Reyes S, Sagara T, Otsuki S, Nadres B, Shahzade HA, Dey-Guha I, Fetter IJ, Baiev I, Van Seventer EE, Murphy JE, Ferrone CR, Tanabe KK, Deshpande V, Harding JJ, Yaeger R, Kelley RK, Bardelli A, Iafrate

AJ, Hahn WC, Benes CH, Ting DT, Hirai H, Getz G, Juric D, Zhu AX, Corcoran RB, Bardeesy N.

TAS-120 overcomes resistance to ATP-competitive FGFR inhibitors in patients with FGFR2 fusion-positive intrahepatic cholangiocarcinoma.

**Cancer Discov.** 2019 Aug;9(8):1064-1079

Magrì A, [Bardelli A](#)

Does early metastatic seeding occur in colorectal cancer?

**Nat Rev Gastroenterol Hepatol.** 2019 Aug 15.

Amatu A, Schirripa M, Tosi F, Lonardi S, Bencardino K, Bonazzina E, Palmeri L, Patanè DA, Pizzutilo EG, Mussolin B, Bergamo F, Alberti G, Intini R, Procaccio L, Arese M, Marsoni S, Nichelatti M, Zagonel V, Siena S, [Bardelli A](#), Loupakis F, Di Nicolantonio F, Sartore-Bianchi A, Barault L.

High Circulating Methylated DNA Is a Negative Predictive and Prognostic Marker in Metastatic Colorectal Cancer Patients Treated With Regorafenib.

**Front Oncol.** 2019 Jul 12;9:622. eCollection 2019.

Rospo G, Lorenzato A, Amirouchene-Angelozzi N, Magrì A, Cancelliere C, Corti G, Negrino C, Amodio V, Montone M, Bartolini A, Barault L, Novara L, Isella C, Medico E, Bertotti A, Trusolino L, Germano G, Di Nicolantonio F, [Bardelli A](#).

Evolving neoantigen profiles in colorectal cancers with DNA repair defects.

**Genome Med.** 2019 Jun 28;11(1):42

Siravegna G, Sartore-Bianchi A, Nagy RJ, Raghav K, Odegaard JI, Lanman RB, Trusolino L, Marsoni S, Siena S, [Bardelli A](#).

Plasma HER2 (ERBB2) copy number predicts response to HER2-targeted therapy in metastatic colorectal cancer.

**Clin Cancer Res.** 2019 May 15;25(10):3046-3053

Reilly NM, Novara L, Di Nicolantonio F, [Bardelli A](#).

Exploiting DNA repair defects in colorectal cancer.

**Mol Oncol.** 2019 Apr;13(4):681-700

Lo Russo G, Moro M, Sommariva M, Cancila V, Boeri M, Centonze G, Ferro S, Ganzinelli M, Gasparini P, Huber V, Milione M, Porcu L, Proto C, Pruneri G, Signorelli D, Sangaletti S, Sfondrini L, Storti C, Tassi E, [Bardelli A](#), Marsoni S, Torri V, Tripodo C, Colombo MP, Anichini A, Rivoltini L, Balsari A, Sozzi G, Garassino M.

Antibody-Fc/FcR Interaction on Macrophages as a Mechanism for Hyperprogressive Disease in Non-Small Cell Lung Cancer Subsequent to PD-1/PD-L1 Blockade.

**Clin Cancer Res.** 2019 Feb 1;25(3):989-999

Mauri G, Pizzutilo EG, Amatu A, Bencardino K, Palmeri L, Bonazzina EF, Tosi F, Carlo Stella G, Burrafato G, Scaglione F, Marsoni S, Siravegna G, [Bardelli A](#), Siena S, Sartore-Bianchi A.

Retreatment with anti-EGFR monoclonal antibodies in metastatic colorectal cancer: Systematic review of different strategies.

**Cancer Treat Rev.** 2019 Feb;73:41-53

Siravegna G, [Bardelli A](#).

Failure is not final: ctDNA-guided rechallenge therapy in colorectal cancer.

**Ann Oncol.** 2019 Feb 1;30(2):157-159

Mauri G, Sartore-Bianchi A, Russo AG, Marsoni S, [Bardelli A](#), Siena S.

Early-onset colorectal cancer in young individuals.

**Mol Oncol.** 2019 Feb;13(2):109-131

Seoane J, De Mattos-Arruda L, Le Rhun E, [Bardelli A](#), Weller M.

Cerebrospinal fluid cell-free tumour DNA as a liquid biopsy for primary brain tumours and central nervous system metastases.

**Ann Oncol.** 2019 Feb;30(2):211-218

## 2018

Germano G, Amirouchene-Angelozzi N, Rospo G and [Bardelli A](#)

The clinical impact of the genomic landscape of mismatch repair deficient cancers

**Cancer Discov.** 2018 Dec;8(12):1518-1528

Ibarrola-Villava M, Cervantes A, [Bardelli A](#)

Preclinical models for precision oncology.

**Biochim Biophys Acta.** 2018 Dec;1870(2):239-246

Truini A, Germano G, [Bardelli A](#).

Inactivation of DNA repair-prospects for boosting cancer immune surveillance.

**Genome Med.** 2018 Nov 28;10(1):91.

Barault L, Amatu A, Siravegna G, Ponzetti A, Moran S, Cassingena A, Mussolin B, Falcomatà C, Binder AM, Cristiano C, Oddo D, Guarrera S, Cancelliere C, Bustreo S, Bencardino K, Maden S, Vanzati A, Zavattari P, Matullo G, Truini M, Grady WM, Racca P, Michels KB, Siena S, Esteller M, [Bardelli A](#), Sartore-Bianchi A, Di Nicolantonio F.

Discovery of methylated circulating DNA biomarkers for comprehensive non-invasive monitoring of treatment response in metastatic colorectal cancer.

**Gut.** 2018 Nov;67(11):1995-2005

Grignani G, D'Ambrosio L, Pignochino Y, Palmerini E, Zucchetti M, Boccone P, Aliberti S, Stacchiotti S, Bertulli R, Piana R, Miano S, Tolomeo F, Chiabotto G,

Sangiolo D, Pisacane A, Dei Tos AP, Novara L, Bartolini A, Marchesi E, D'Incalci M, [Bardelli A](#), Picci P, Ferrari S, Aglietta M.

Trabectedin and olaparib in patients with advanced and non-resectable bone and soft-tissue sarcomas (TOMAS): an open-label, phase 1b study from the Italian Sarcoma Group.

**Lancet Oncol.** 2018 Oct;19(10):1360-1371

Knickelbein K, Tong J, Chen D, Wang YJ, Misale S, [Bardelli A](#), Yu J, Zhang L.

Restoring PUMA induction overcomes KRAS-mediated resistance to anti-EGFR antibodies in colorectal cancer.

**Oncogene.** 2018 Aug;37(33):4599-4610

Mainardi S, Mulero-Sánchez A, Prahallad A, Germano G, Bosma A, Krimpenfort P, Lieftink C, Steinberg JD, de Wit N, Gonçalves-Ribeiro S, Nadal E, [Bardelli A](#), Villanueva A, Bernardis R.

SHP2 is required for growth of KRAS-mutant non-small-cell lung cancer in vivo.

**Nat Med.** 2018 Jul;24(7):961-967

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