

AACR

American Association
for Cancer Research®

PROJECT **GENIE**®

Genomics Evidence Neoplasia Information Exchange

GENIE BPC CRC 2.0- PUBLIC

OVERVIEW

2022

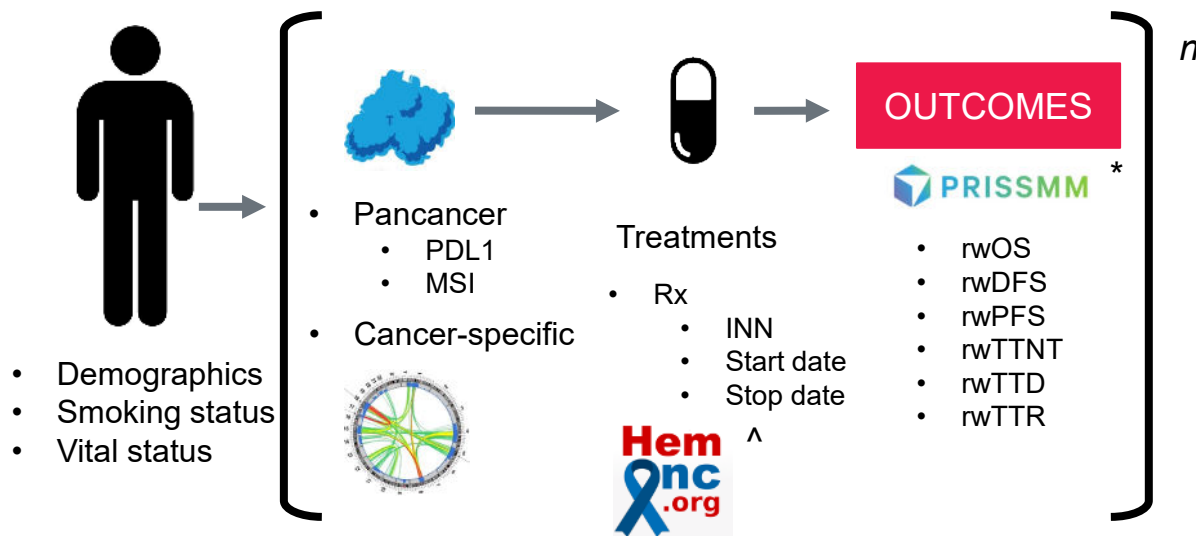
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Release Notes

- **PRISSMM™:** the BPC CRC dataset uses the PRISSMM™ framework developed at the Dana-Farber Cancer Institute to determine outcomes from retrospective real-world data to ascertain cancer treatment responses in the real world. Additional information can be found in the [analytic data guide](#) and information about licensing PRISSMM™ can be obtained by emailing PRISSMM@mskcc.org
- **Pathologic information:** Each pathology specimen from diagnosis through death or last follow-up is curated with specimen type, site, and histology.
- **Imaging information:** Each CT, MRI, PET-CT scan from diagnosis through death or last follow-up is curated for the presence or absence of cancer and an evaluation of whether the cancer was stable, responding, or progressing.
- **Medical oncologist's evaluations:** Medical oncology notes (1/month) have been curated to ascertain the presence or absence of cancer and whether the cancer was stable, responding, or progressing.
- **Additional relevant biomarkers:** Information about select biomarkers not included on the NGS panels, including PDL1, MMR and MSI, are also curated.
- Colorectal cancer diagnosis is considered the index tumor for this patient cohort. There are data about other cancer diagnoses antecedent to the colorectal and subsequent to the colorectal diagnosis.

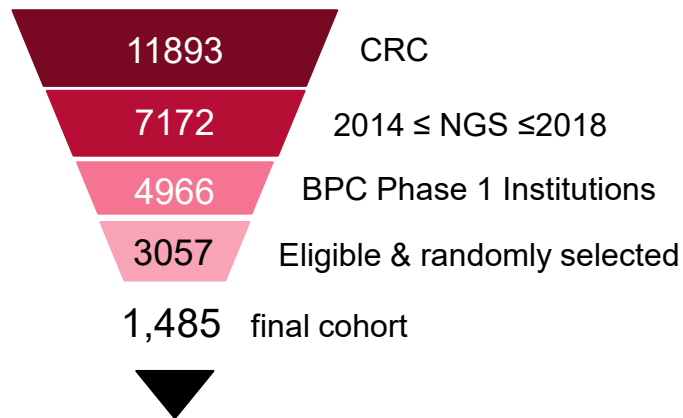
GENIE Data Model



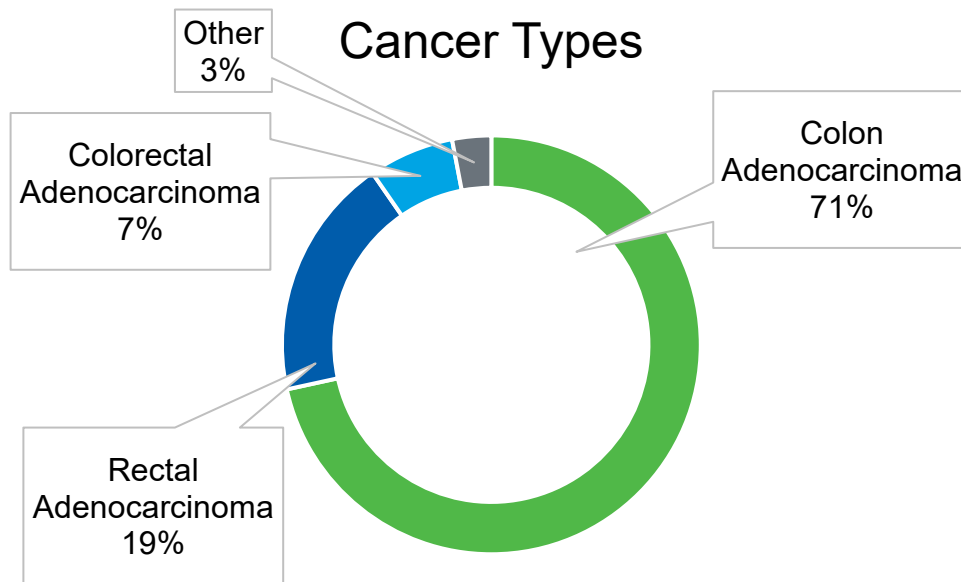
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BPC CRC 2.0-public Cohort

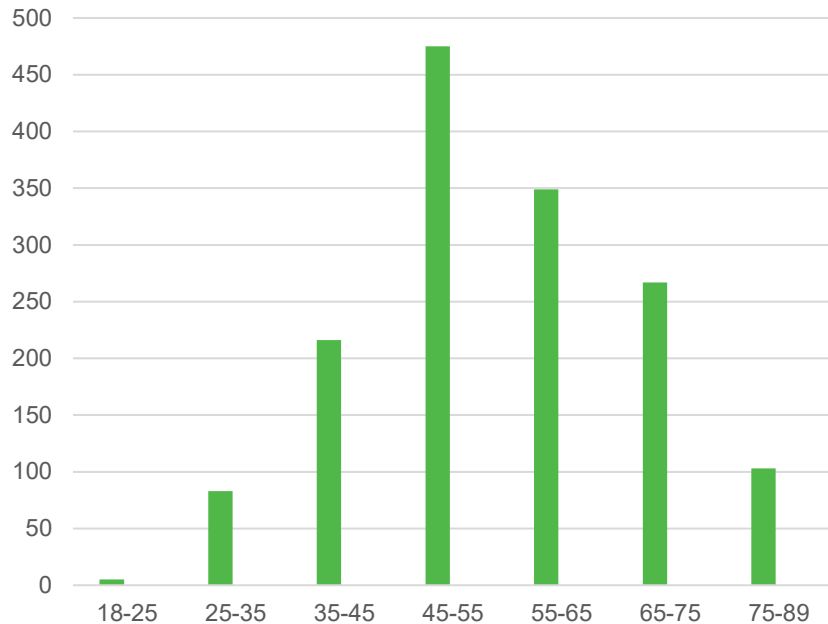


Colon Adenocarcinoma	1,107	71.4%
Rectal Adenocarcinoma	288	18.6%
Colorectal Adenocarcinoma	102	6.6%
Mucinous Adenocarcinoma of the ...	49	3.2%

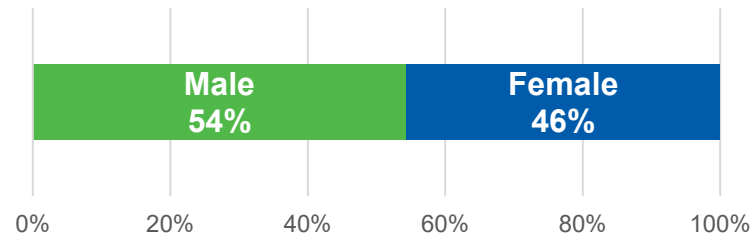


BPC CRC 2.0-public Demographics

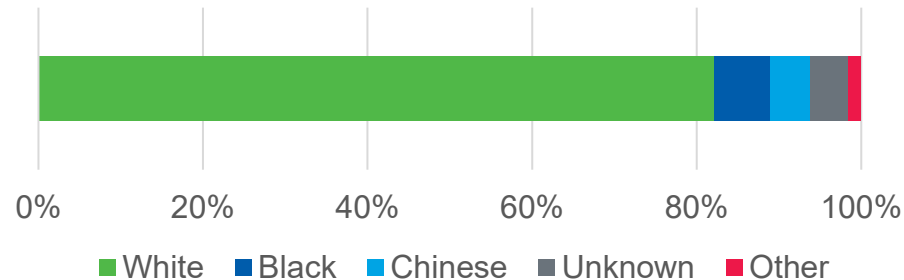
Age at Diagnosis



Sex

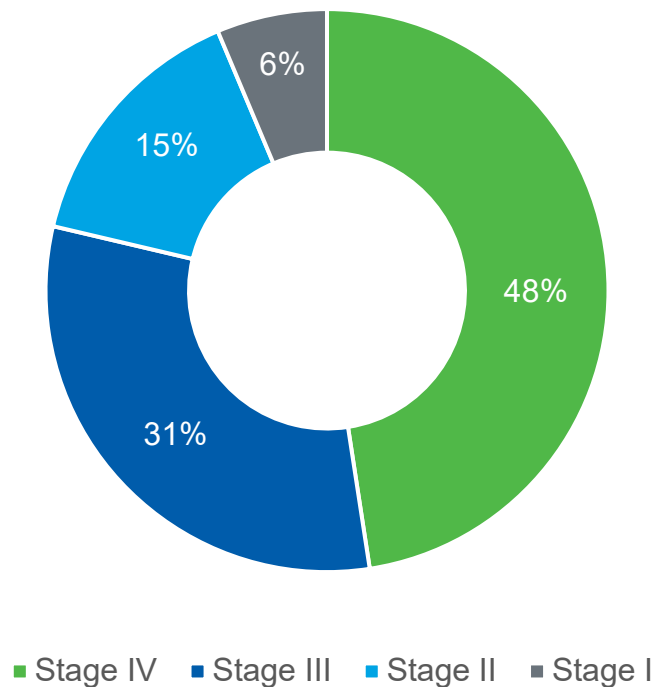


Primary Race



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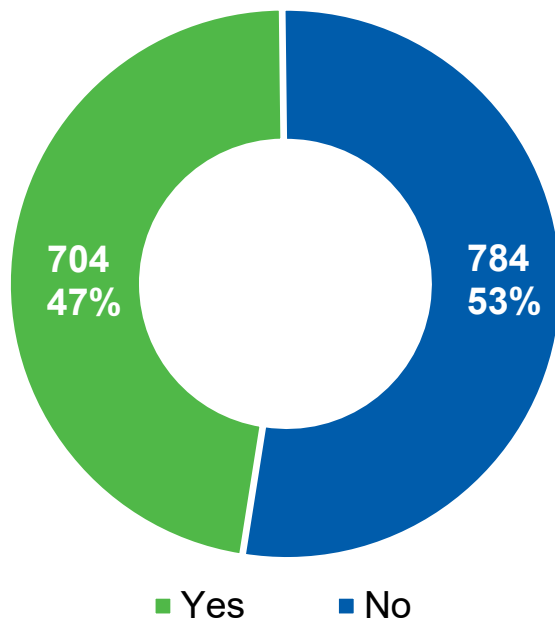
BPC CRC 2.0-public: Stage at Diagnosis



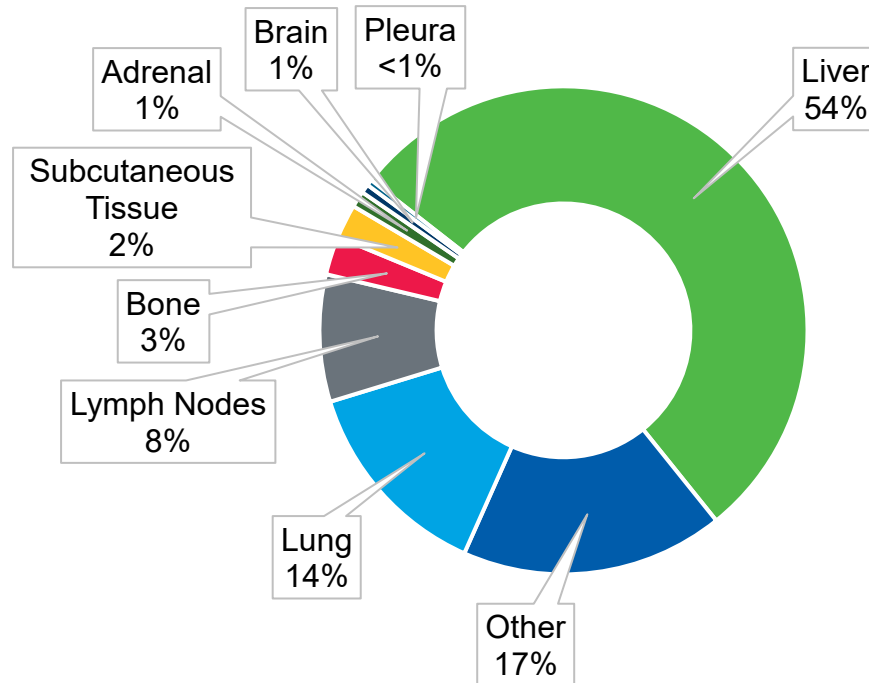
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BPC CRC 2.0-public: Sites of Metastases at Diagnosis

Patients with Distant Metastases at Diagnosis



Location of Metastasis



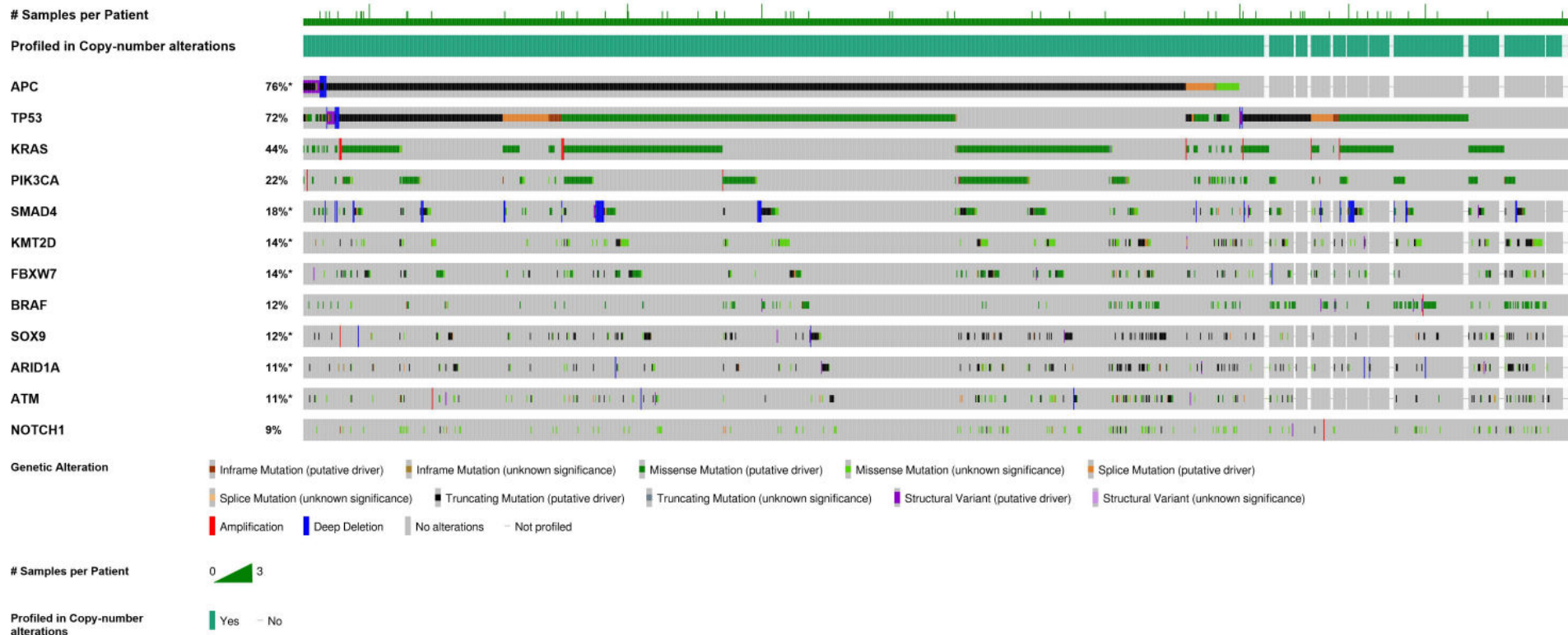
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BPC CRC 2.0-public: Detailed Clinical Genomics

Mutated Genes (1551 profiled samples)				Structural Variant Genes (253 profiled samples)				CNA Genes (1487 profiled samples)				
Gene	# Mut	#	Freq	Gene	# SV	#	Freq	Gene	Cytoband	CNA	#	Freq
APC	1,810	1,114	74.9%	APC	19	19	7.5%	ARFRP1	20q13.33	AMP	19	10.4%
TP53	1,187	1,107	71.4%	TP53	14	14	5.5%	FGF14	13q33.1	AMP	16	8.8%
KRAS	678	669	43.1%	CTNNB1	13	13	5.1%	RTEL1	20q13.33	AMP	20	5.3%
PIK3CA	367	327	21.1%	BRAF	8	7	2.8%	FLT3	13q12.2	AMP	73	4.9%
SMAD4	247	224	15.1%	PRKN	6	6	2.4%	BCL2L1	20q11.21	AMP	67	4.5%
LRP1B	52	27	14.8%	SMAD4	4	4	1.6%	MYC	8q24.21	AMP	67	4.5%
KMT2D	336	208	14.0%	TCF7L2	4	4	1.6%	SRC	20q11.23	AMP	52	4.3%
FBXW7	226	203	13.7%	PBRM1	4	4	1.6%	FLT1	13q12.3	AMP	61	4.1%
COL7A1	40	35	12.5%	NTRK1	4	4	1.6%	CDK8	13q12.13	AMP	49	4.1%
BRAF	200	190	12.3%	ATM	3	3	1.2%	TOP1	20q12	AMP	37	4.0%
SOX9	200	174	11.7%	PTEN	3	3	1.2%	AGO2	8q24.3	AMP	15	4.0%
PTPRS	108	85	11.6%	NF1	3	3	1.2%	DNMT3B	20q11.21	AMP	28	3.8%

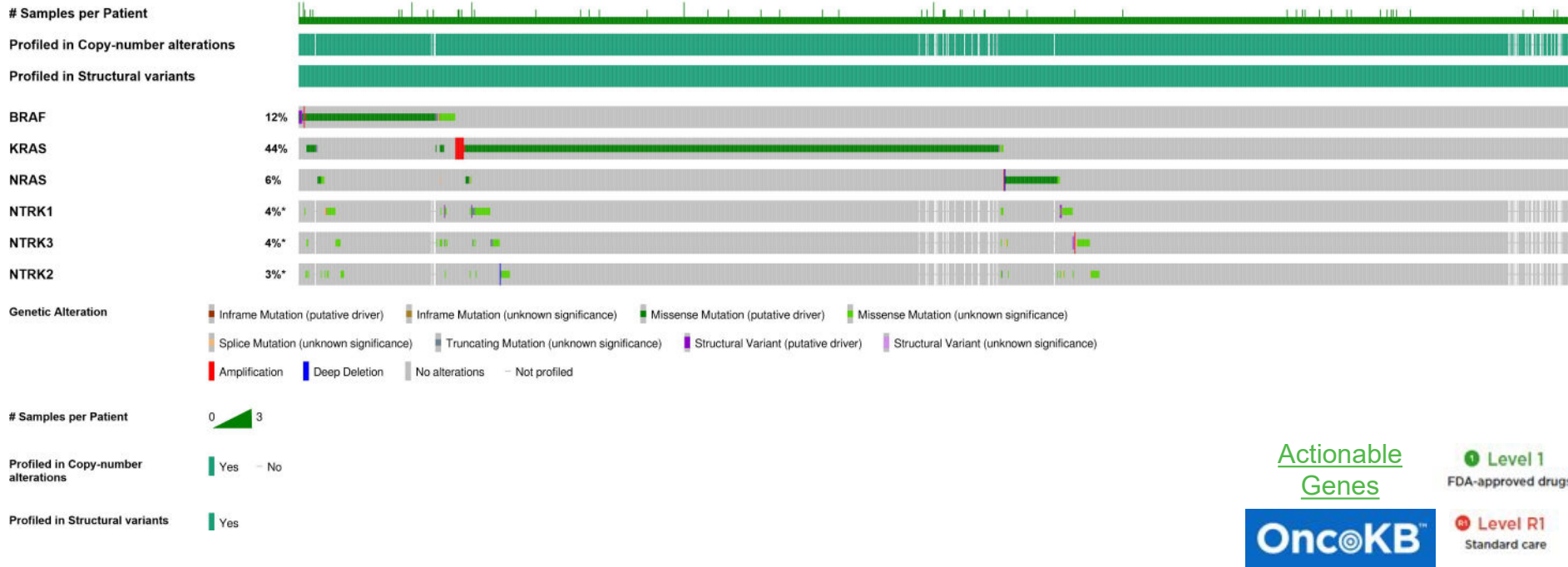
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Top 12 Mutated Genes CRC 2.0-public



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Clinically Actionable Genes CRC 2.0-public

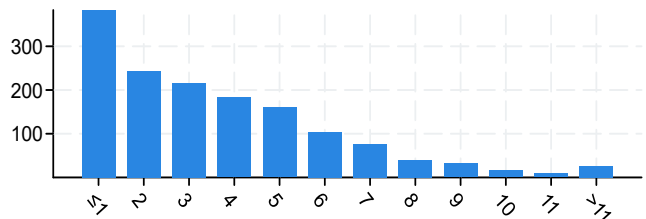


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Chakravarty et al., JCO PO 2017

BPC CRC 2.0-public: Complete Treatment Histories

Number of cancer-directed drug regimens curated for each patient



Cancer-directed Drug Regimens (Includes regimens ever received for CRC irrespective of line or stage)

Regimen	# of patients
FOLFOX	1172
FOLFOX + Bevacizumab	702
FOLFIRI	853
FOLFIRI + Bevacizumab	665

Treatments by Patient

Treatment per Patient	
Treatment	#
Fluorouracil	1,247
Leucovorin Calcium	1,237
Oxaliplatin	1,209
Irinotecan Hydrochloride	866
Bevacizumab	746
Capecitabine	397
Investigational Drug	189
Panitumumab	171
Cetuximab	154
Trifluridine and Tipiracil Hydrochloride	153

Treatments by Sample (pre- and post-)

Treatment per Sample (pre/post)		
Treatment	Pre / Post	#
Leucovorin Calcium	Pre	865
Leucovorin Calcium	Post	437
Fluorouracil	Pre	853
Fluorouracil	Post	459
Oxaliplatin	Pre	843
Oxaliplatin	Post	428
Irinotecan Hydrochloride	Pre	757
Irinotecan Hydrochloride	Post	167
Bevacizumab	Pre	630
Bevacizumab	Post	162

- Individual regimens can be calculated from the raw data found [here](#) on Synapse
- Treatment history for non-index cancers can be found [here](#) on Synapse

BPC CRC 2.0-public: Comprehensive Patient View

Sample Patient

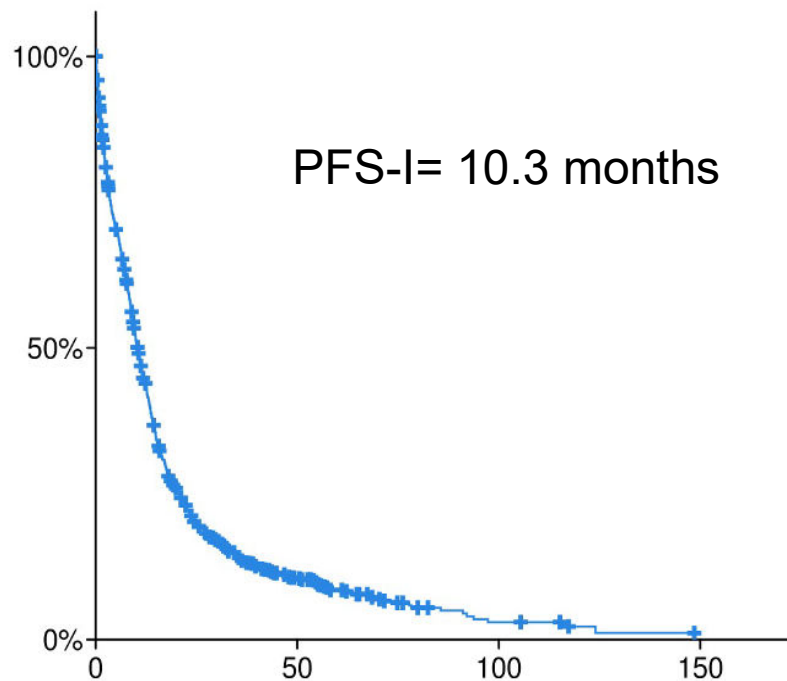
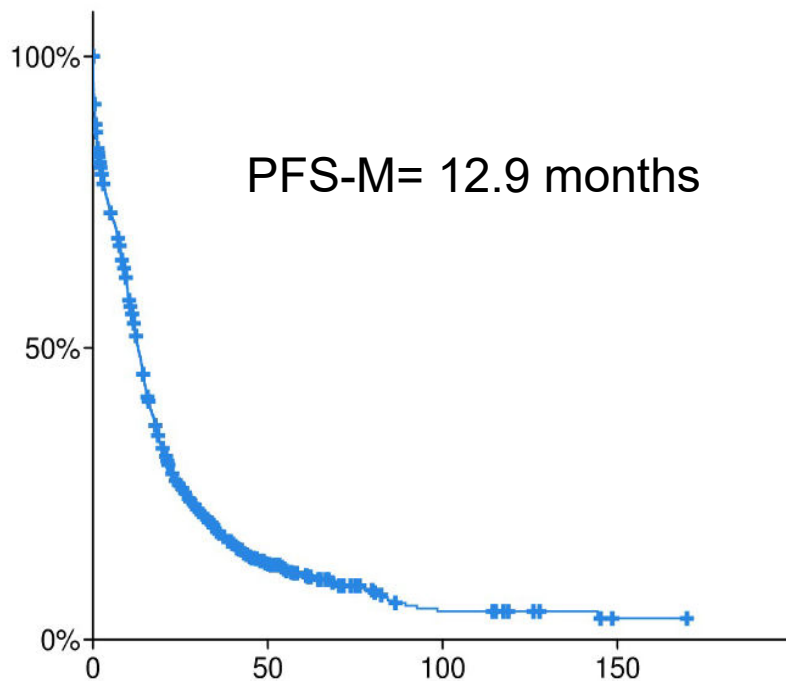


Pathology Reports

Disease Status by Medical Oncology Note and by Imaging

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BPC CRC 2.0-public: High Quality Clinical Data

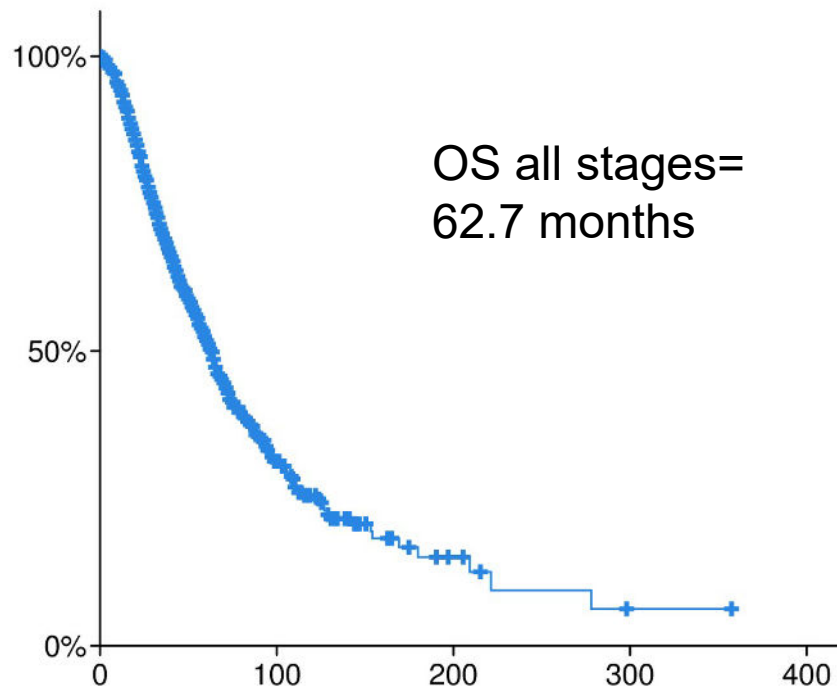
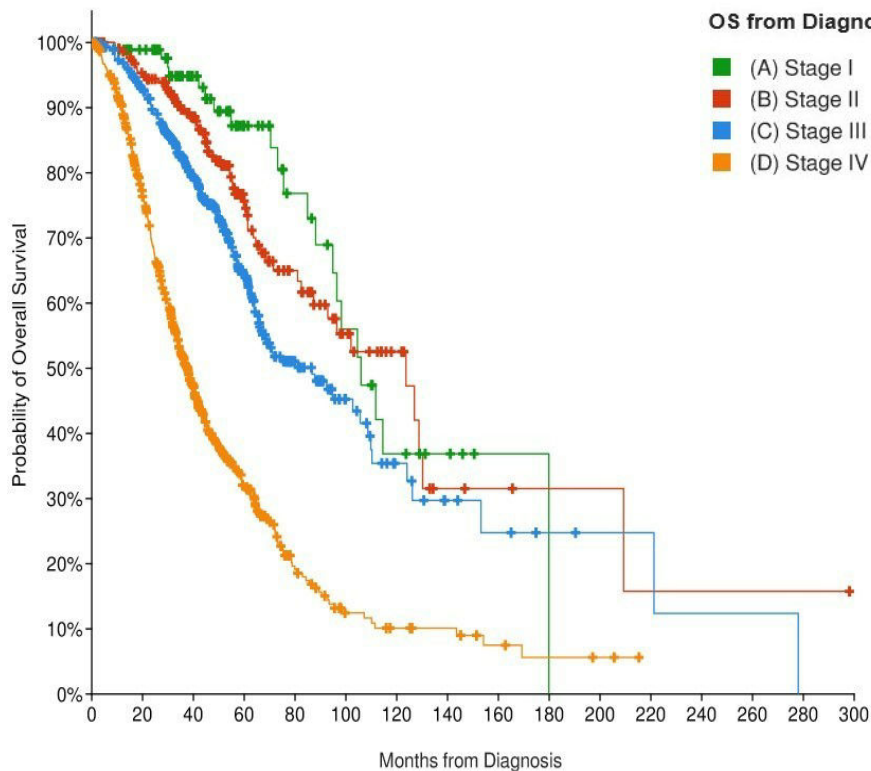


- PFS-M and PSF-I are available by regimen for those regimens containing greater than 10 patients

* Not adjusted
for delayed entry

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BPC CRC 2.0-public: OS by Stage



*not adjusted for delayed entry

GENIE BPC Acknowledgements



Shawn M. Sweeney
Michael Fiandalo
Jennifer Hoppe



Niki Schultz
Ben Gross
Ritika Kundra
Brooke Mastrogiacomio



Xindi Guo
Thomas Yu
Chelsea Nayan



Memorial Sloan Kettering
Cancer Center.

Gregory Riely
Deb Schrag
Julia Rudolph
Charles L. Sawyers
Hira Rizvi
John Phillip
Julian Schwartz
Marufur Bhuiya
Stu Gardos
Cynthia Chu
Shirin Pillai

Statistical Core
Kathy Panageas
Jessica Lavery
Samantha Brown
Axel Martin
Michael Curry



Dana-Farber
Cancer Institute

Ken Kehl
Asha Postle
Ashley Newcomb
Kevin Haigis
John Orechia
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Simon Arango Baquero



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can be found [here](#)