One Mutation can Increase the Likelihood of Many "RELATED" Cancers

The Future Today	Genes	Breast	Ovarian	Colorectal	Endometrial	Melanoma	Pancreatic	Gastric	Prostate	Other	Lynch Cancers:
	APC)		•			•	•		•	
BRCA	ATM	•					•				
	BARD1 BMPR1/	•		•				•		•	Lynch Syndrome is
Cancers	BRCA1			•				•	(\cdot)	-	
	BRCA2		•			•	(\cdot)				defined by a
	BRIP1	•	\mathbf{Y}								mutation in one of 5
	CDH1 CDK4	•		•		•	•	•			
O(1 + V)	CDK4 CDKN2A					•	•				Genes:
Other Very	CHEK2	•		•					•		MLH1
High-Risk	ELAC2								•		
U	EPCAM HOXB13	-	-	•	•		•	•	-		MSH2
<u>Cancers</u>	MLH1	5			•		-			•	MSH6
	MRE11/	•	•				-				
C 3.7	MSH2			•	•		-	•			PMS2
5 New	MSH6 MUTYH	/	•	•	·		-	•			EPCAM
Genes	NBN	•		•					•	/	
	PALB2	•					•				
added <u>in</u>	PMS2)	•	•	•		•	•			Increases risk of
2017!	POLD1 POLE			•							
<u>2017:</u>	PULE PTCH1	•		•							Colon, Endometrial
	PTEN	•		•	•	•				•	Ovarian, Pancreatic
HOXB13	RAD50	•									· ·
POLE	RAD510		•								Skin, Brain, Kidney
POLD1	RAD510 RECOL4	•	•							•	Stomach and other
RECQL4	RET		•							•	Stoffiach and Other
	RINT1	•									Cancers
RINT1	SMAD4 STK11	•	•	•	•		•	•		•	
	TP53		•	•	•	•	•	•	•	•	

Conoll